



REVISED PUBLIC AGENDA  
STANDING POLICY COMMITTEE  
ON TRANSPORTATION

Monday, May 11, 2015, 9:00 a.m.

Council Chamber, City Hall

Committee Members:

Councillor C. Clark, Chair, Councillor R. Donauer, Vice-Chair, Councillor T. Davies, Councillor D. Hill,  
Councillor M. Loewen, His Worship the Mayor (Ex-Officio)

Pages

1. CALL TO ORDER

2. CONFIRMATION OF AGENDA

*Recommendation*

1. That the additional information from Uber be added to Item 6.3.1., and Chris Schafer, Public Policy Manager, Uber, be heard in place of Hugh McFadyen;
2. That the communication from Sean Shaw, Board Member, Saskatoon Cycles, be added to Item 7.2.1 and the information be received; and
3. That the agenda be confirmed as amended.

3. DECLARATION OF PECUNIARY INTEREST

4. ADOPTION OF MINUTES

*Recommendation*

That the minutes of regular meeting of Standing Policy Committee on Transportation held on April 14, 2015 be adopted.

5. UNFINISHED BUSINESS

6. COMMUNICATIONS (requiring the direction of the Committee)

6.1 Delegated Authority Matters

6.2 Matters Requiring Direction

## 6.3 Requests to Speak (new matters)

### 6.3.1 *Uber Technologies - Hugh McFadyen, DFH Public Affairs Ltd. [File No. CK. 7000-1]* 4 - 31

A request to speak has been added to this item from Mr. Chris Schafer, Public Policy Manager, Uber, in place of Mr. Hugh McFadyen.

#### ***Recommendation***

That Mr. Chris Scafer, Public Policy Manager, Uber, be heard.

## 7. REPORTS FROM ADMINISTRATION

### 7.1 Delegated Authority Matters

### 7.2 Matters Requiring Direction

#### 7.2.1 *Parking Meter Post Conversion Pilot Project [Files CK.6120-3, x5300-5-5 and PL. 6330-4-1]* 32 - 38

A communication has been added to this item from Sean Shaw, Saskatoon Cycles.

#### ***Recommendation***

That the report of the General Manager, Community Services Department, dated May 11, 2015, be forwarded to City Council for information.

#### 7.2.2 **Varsity View Neighbourhood Traffic Review [File No. CK. 6320-1]** 39 - 95

#### **Recommendation**

That the Standing Policy Committee on Transportation recommend to City Council:

That the Neighbourhood Traffic Review for the Varsity View neighbourhood be adopted as the framework for future traffic improvements in the area, to be undertaken as funding is made available through the annual budget process.

- 7.2.3 **Prioritization Strategy for Roadway Network Improvements [Files CK. 6320-1 and TS. 6330-1]** 96 - 104

**Recommendation**

That the Standing Policy Committee on Transportation recommend to City Council:

1. That the Administration be directed to develop the appropriate policy or policies for prioritizing transportation system improvements based on the outline presented in this report; and
2. That the Administration bring forward the draft policy or policies to the Standing Policy Committee on Transportation prior to implementation.

- 7.2.4 **Winter 2014/2015 Snow & Ice Operations Summary [Files CK. 6290-1 and PW. 6290-1]** 105 - 115

**Recommendation**

That the report of the General Manager, Transportation & Utilities Department dated May 11, 2015, be forwarded to City Council for information.

8. **URGENT BUSINESS**
9. **MOTIONS (Notice Previously Given)**
10. **GIVING NOTICE**
11. **IN CAMERA AGENDA ITEMS**
12. **ADJOURNMENT**

**RECEIVED**

MAY 08 2015

7000-1

CITY CLERK'S OFFICE  
SASKATOON

**From:** Bryant, Shellie (Clerks)  
**Sent:** May 08, 2015 8:16 AM  
**To:** Couture, Suzanne (Clerks)  
**Subject:** FW: Uber: Delegation Appearance (May 11th)  
**Attachments:** Uber General Leave Behind (Editable) SASKATOON.docx; Safety from Start to Finish.pdf; CanadaXSafety\_Blog (1).pdf; uber\_toronto\_driver-profiles\_8-1\_2x11\_r2 (1).pdf; Uber Map USA.pdf; Illinois.pdf; UberXRidesharing Principles - Google Docs.pdf; Competition Bureau & Uber.pdf; UberPool copy.pdf; DUI RATES DECLINE IN UBER CITIES Handout.docx

**From:** Chris Schafer [<mailto:chris.schafer@uber.com>]  
**Sent:** May 08, 2015 6:52 AM  
**To:** Bryant, Shellie (Clerks)  
**Subject:** Uber: Delegation Appearance (May 11th)

Dear Shellie,

RE: APPEARANCE BEFORE STANDING POLICY COMMITTEE ON TRANSPORTATION FILE CK 7000-1

You requested that I provide 10 copies of my presentation for the committee and administration before 8am on May 11th. Please find attached material related to my presentation. I will have 5 minutes of prepared oral remarks.

Please confirm receipt of this email at your earliest convenience.

Sincerely,

Chris Schafer  
Uber Public Policy Manager - Canada  
[chris.schafer@uber.com](mailto:chris.schafer@uber.com) | +1 (647) 389-8052  
[www.uber.com](http://www.uber.com)

## WHAT IS UBER?

- Uber is an innovative technology platform that connects drivers and riders via smartphone app
- We offer safe, seamless and reliable transportation connection options at multiple price points
- **Uber partners with municipally licensed drivers; we do not own or operate cars or employ drivers**
- Tens of thousands of Canadians rely on Uber regularly to connect them with drivers, and Uber helps hundreds of drivers earn a better living by connecting them to additional fares
- Uber operates in >300 cities and employs >2000 people in its offices; our investors include Google and other leading global companies

## WHY RIDERS LOVE UBER?

**FASTER:** we provide the fastest response time of any transportation option in Canada

**SEAMLESS:** automatic transactions, electronic receipts and transparency in pricing

**BETTER EXPERIENCE:** Uber allows riders to rate their drivers and provides feedback

**MORE RELIABLE:** we use data to ensure supply matches demand

## WHY DRIVERS LOVE UBER

**HIGHER INCOME:** The Uber technology platform benefits our partners by connecting them to more fares

**SAFER WORK ENVIRONMENT:** drivers are safer with cashless transactions and secure GPS tracking abilities

**INCREASED EFFICIENCY:** drivers spend more time with fares and less time waiting to be hailed

**GROWING THEIR BUSINESS:** many partners have grown their fleets since partnering with Uber

## WHY CITIES LOVE UBER?

**LOWER CONGESTION AND POLLUTION:** Uber makes connecting with drivers easier, which encourages more people to use taxis and limos

**INCREASED CHOICE:** Uber gives consumers more transportation choices

**TOURIST FRIENDLY:** the Uber app works across 100+ cities and is frequently used by travelers

**PROMOTES INNOVATION:** Canada is a progressive, consumer-friendly country that embraces technology and invests in innovation

## HOW UBER WORKS

1. Riders select their vehicle type and set their pickup location aided by GPS
2. Riders request a ride and Uber technology immediately notifies the nearest Uber partner



1



2

## EXCITING PORTFOLIO OF SERVICES

- **UberTAXI** Riders can request the nearest taxi using our app; rides are charged at standard taxi meter rates, and a 20% gratuity is set by default and can be adjusted by the rider
- **UberBLACK/UberSUV** Riders can request the nearest black limo using our app; rides are charged at a base rate, plus time and distance premiums
- **UberX/UberXL** (currently available in Toronto, Ottawa, and Montreal, Edmonton) Peer-to-peer ride sharing offered by insured drivers who have undergone extensive background scrutiny, are fully insured and are tracked and rated through Uber technology; rides are charged at a base rate, plus time and distance
- **UberACCESS** (available in Toronto) Wheelchair accessible vehicle option for members of the community with accessible needs who require a ramp or lift.

## REGULATORY FRAMEWORK

- Uber's innovative technology and business model are not explicitly regulated by provincial or municipal regulations
- Expensive minimum fares and wait times are anti-consumer and provide no discernable safety benefit
- Many global cities and jurisdictions have shown leadership by updating their regulations to reflect innovation in transportation, including California, Colorado, and Detroit
- Provinces and cities have an opportunity to positively support job creation and innovation by updating regulations to reflect technological changes

## UBER'S COMMUNITY INVOLVEMENT

- Uber has partnered with and supported thousands of events in Canadian cities since 2012. We partner with local businesses and BIAs to increase traffic to neighbourhoods; we call it our #NeighbourhoodLove campaign.
- Our #UberSpringCleaning campaign offered free on-demand pickup of Goodwill clothing donations. Uber actively supports anti-drinking and driving initiatives to promote a safer lifestyle

## HOW UBER WORKS cont.

3. The driver is given the rider's exact pickup location and phone number; the rider is provided with the driver's information and rating

4. At the end of the ride, the rider exits the car without paying (payment is automatic), rates the driver and immediately receives an electronic receipt



3



4

## OUR PROMISE SAFETY FROM START TO FINISH

As we prepare for another busy year, we'd like to remind you of our promise: From the moment you go online through your last trip of the day, we're committed to making Uber safe for you and your riders.

### HERE'S HOW



#### NOBODY'S A STRANGER

Uber is a two-way street. You'll see your rider's name before they hop in and they'll see your name, photo, and vehicle information. These details are also available on rider trip receipts and on your partner dashboard.



#### YOU'RE ALWAYS ON THE MAP

We collect information about your trips, so if anything goes wrong, we can easily determine when and where it happened and make this information available to police and law enforcement when necessary.



#### RISK-FREE TRANSACTIONS

Uber is cashless, so you never need to worry about driving with money in your car, and you're assured payment for every single trip.



#### ZERO TOLERANCE

If there's ever an issue or incident, our local support teams have your back. We take inappropriate behavior seriously and will immediately and permanently remove anyone—rider or driver—who behaves inappropriately on the system.

Not only do these policies keep you safe, they protect your business and reputation, and the great service you provide every day.

If you have any questions or suggestions about how we can continue improving safety, email us at [safety@uber.com](mailto:safety@uber.com).

— The Uber Team

FOLLOW US ON:



TORONTO

## UBERX SAFETY IN TORONTO

SEPTEMBER 7, 2014  
POSTED BY RACHEL





**Our commitment to safety has always been our top priority.**

With uberX, we are continuing to innovate by introducing industry-leading safety practices that go above and beyond existing Toronto municipal requirements:

### BETTER THAN TAXI BACKGROUND CHECKS

All uberX drivers must pass background checks that are the most stringent in the industry, surpassing Toronto taxi and limo requirements. The screening process we've developed includes both a National Criminal Record Check of federal RCMP databases and searches of local police databases which contain the most comprehensive collection of offence information. Additionally, we screen motor vehicle records for any infractions by type and date.

### TORONTO INSURANCE & SAFETY STANDARD COMPARISON

	uberX 	Toronto Taxis 
Criminal Background Check	Yes	Yes
Local Police Check <small>(recent offenses and charges)</small>	Yes	No
Sexual Offenses Background Check	Lifetime	5 years
DUI Background Check	Lifetime	5 years
Traffic Offense Check <small>(serious accidents / reckless driving)</small>	Lifetime	5 years



Insurance Coverage	<b>\$5 Million</b>	<b>\$2 Million</b>
No Anonymous Pickups	<b>Yes</b>	<b>No</b>
Share Your ETA <small>(with friends, family, coworkers)</small>	<b>Yes</b>	<b>No</b>
Feedback Requested After Every Ride	<b>Yes</b>	<b>No</b>
24/7 Feedback Review and Response	<b>Yes</b>	<b>No</b>

U B E R

## BEST IN CLASS INSURANCE

Every ride on the uberX platform is backed by \$5,000,000 of contingent coverage for bodily injury and property damage to third parties. This means that if, in the event of an accident, a ridesharing partner's own personal insurance does not apply for any reason, passengers, pedestrians, other drivers, and the community at large can rest assured knowing that ridesharing partners remain covered by a robust first-class policy. This coverage is 2.5 times the standard requirement for taxi and limo insurance in Canada and is backed by an A.M. Best A+ (Superior) rated insurance company.

## ANONYMOUS FEEDBACK, FULL ACCOUNTABILITY

After every trip, we ask you to rate the driver and provide feedback about your ride – but your comments always remain anonymous to them. We are constantly monitoring feedback to help drivers improve the Uber experience they deliver. Drivers work hard to keep their ratings high, and they know our culture of accountability goes both ways.

## VEHICLE STANDARDS THAT RAISE THE BAR

Not just any car can be an Uber. It's a title reserved for safe, high-quality vehicles that are in exceptional condition. In Canada, the average model year for vehicles on our platform is 2009, and none are older than 2005.

## NO RANDOM PICKUPS

Making sure you always have a safe, relaxing ride starts before you even get in an Uber. You'll see your driver's name, photo, license plate number, car make and model, and feedback rating when your request is confirmed – so you know who's picking you up ahead of time. And after the trip, you'll still be able to contact the driver in case you leave something behind.

## ALWAYS INNOVATING

The bottom line is this: Uber works hard to ensure that we are connecting riders with the safest rides on the road. We'll continue innovating, refining, and working diligently to ensure that Uber is the safest experience on the road.

# IN THEIR OWN WORDS

## PARTNERS FROM ACROSS THE COUNTRY SHARE THEIR EXPERIENCE



"My father drove taxi for over 48 years in Ottawa. Turns out the acorn doesn't fall far from the tree, as my father loved his work, I as well truly enjoy meeting people, talking to them and providing a valuable service to them. What I love about Uber is that the system is simply the best system I have ever seen when it comes to a driving service, it is nice to be a part of."

**JEFF** / OTTAWA, ON

"I am a recent Business Administration graduate, passionate about helping people live easier lives. Which is why, professionally I work with LegalShield. I've connected with so many awesome Torontonians and I now know my way around the city a lot more effectively. Everyone I talk to loves it and is comfortable using the Uber platform."

**JAMES** / TORONTO, ON



"Currently I am a full-time Medical laboratory technician/assistant. I started working as an uberX driver from day one in Edmonton. I think uberX is the future of how taxis would be defined and used. I just wanted to be part of new beginning in our city to provide excellent reliable alternative transport option to the public."

**ABDIREZAK** / EDMONTON, AB

"I was looking for something that would allow me to earn money, interact with people and fill in spaces in my day that would feel rewarding and give me joy. I also do not want to put myself on someone else's schedule. I want to have the freedom to take off and travel, do what I want to do, when I want to do it! Uber is that for me!"

**ESTHER** / TORONTO, ON



"I was looking for something to supplement my income, that was safe, fun and lucrative. It has helped me to develop more confidence in myself; the power to manage my life is exhilarating! Being able to decide when I work and how much I make, is very empowering and freeing, especially in an industry that is male dominated."

**RACHEL** / TORONTO, ON

"When I lost my job in November I was equally panicked about my loss of stability and excited that I'd have an opportunity to pursue my dreams more seriously. Driving for Uber was the final thing that convinced me that I could be the master of my own destiny."

**RYAN** / EDMONTON, AB



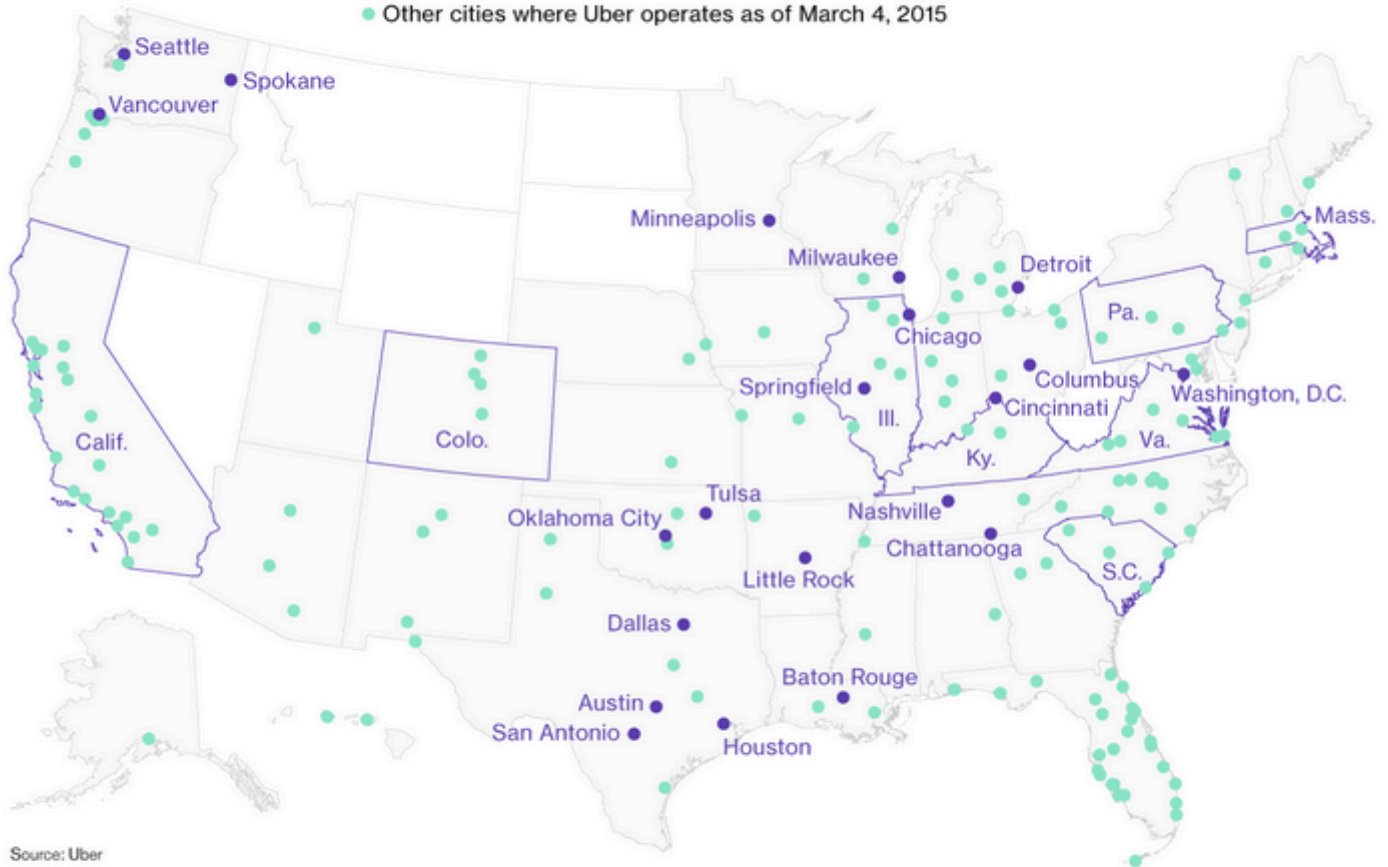
"The Canadian Armed Forces has always bestowed teamwork amongst us. I am honoured to be connected to the True Patriot Love foundation. Canada is a huge country and I understand how important it is for people to move around. I am privileged that I can help my fellow Canadians (and tourists alike) get around. It's with great pride that I was able to serve my country in uniform and now, with uberFORCES. Go Canada—Go Uber!"

**GLEN** / OTTAWA, ON

## Uber's U.S. Footprint

Uber operates in about 170 U.S. cities. In the past year, rideshare services have been approved by several states and more than a dozen cities.

- States/cities that approved rideshare services in the past year
- Other cities where Uber operates as of March 4, 2015



Source: Uber

Bloomberg Graphics

Graphic: Alex Tribou/Bloomberg

AN ACT concerning regulation.

**Be it enacted by the People of the State of Illinois,  
represented in the General Assembly:**

Section 1. Short title. This Act may be cited as the Transportation Network Providers Act.

Section 5. Definitions.

"Transportation network company" or "TNC" means an entity operating in this State that uses a digital network or software application service to connect passengers to transportation network company services provided by transportation network company drivers. A TNC is not deemed to own, control, operate, or manage the vehicles used by TNC drivers, and is not a taxicab association or a for-hire vehicle owner.

"Transportation network company driver" or "TNC driver" means an individual who operates a motor vehicle that is:

(1) owned, leased, or otherwise authorized for use by the individual;

(2) not a taxicab or for-hire public passenger vehicle;  
and

(3) used to provide transportation network company services.

"Transportation network company services" or "TNC services" means transportation of a passenger between points

chosen by the passenger and prearranged with a TNC driver through the use of a TNC digital network or software application. TNC services shall begin when a TNC driver accepts a request for transportation received through the TNC's digital network or software application service, continue while the TNC driver transports the passenger in the TNC driver's vehicle, and end when the passenger exits the TNC driver's vehicle. TNC service is not a taxicab, for-hire vehicle, or street hail service.

Section 10. Insurance.

(a) Transportation network companies and participating TNC drivers shall comply with the automobile liability insurance requirements of this Section as required.

(b) The following automobile liability insurance requirements shall apply from the moment a participating TNC driver logs on to the transportation network company's digital network or software application until the TNC driver accepts a request to transport a passenger, and from the moment the TNC driver completes the transaction on the digital network or software application or the ride is complete, whichever is later, until the TNC driver either accepts another ride request on the digital network or software application or logs off the digital network or software application:

(1) Automobile liability insurance shall be in the amount of at least \$50,000 for death and personal injury

per person, \$100,000 for death and personal injury per incident, and \$25,000 for property damage.

(2) Contingent automobile liability insurance in the amounts required in paragraph (1) of this subsection (b) shall be maintained by a transportation network company and provide coverage in the event a participating TNC driver's own automobile liability policy excludes coverage according to its policy terms or does not provide at least the limits of coverage required in paragraph (1) of this subsection (b).

(c) The following automobile liability insurance requirements shall apply from the moment a TNC driver accepts a ride request on the transportation network company's digital network or software application until the TNC driver completes the transaction on the digital network or software application or until the ride is complete, whichever is later:

(1) Automobile liability insurance shall be primary and in the amount of \$1,000,000 for death, personal injury, and property damage. The requirements for the coverage required by this paragraph (1) may be satisfied by any of the following:

(A) automobile liability insurance maintained by a participating TNC driver;

(B) automobile liability company insurance maintained by a transportation network company; or

(C) any combination of subparagraphs (A) and (B).

(2) Insurance coverage provided under this subsection (c) shall also provide for uninsured motorist coverage and underinsured motorist coverage in the amount of \$50,000 from the moment a passenger enters the vehicle of a participating TNC driver until the passenger exits the vehicle.

(3) The insurer, in the case of insurance coverage provided under this subsection (c), shall have the duty to defend and indemnify the insured.

(4) Coverage under an automobile liability insurance policy required under this subsection (c) shall not be dependent on a personal automobile insurance policy first denying a claim nor shall a personal automobile insurance policy be required to first deny a claim.

(d) In every instance when automobile liability insurance maintained by a participating TNC driver to fulfill the insurance obligations of this Section has lapsed or ceased to exist, the transportation network company shall provide the coverage required by this Section beginning with the first dollar of a claim.

(e) This Section shall not limit the liability of a transportation network company arising out of an automobile accident involving a participating TNC driver in any action for damages against a transportation network company for an amount above the required insurance coverage.

(f) The transportation network company shall disclose in

writing to TNC drivers, as part of its agreement with those TNC drivers, the following:

(1) the insurance coverage and limits of liability that the transportation network company provides while the TNC driver uses a vehicle in connection with a transportation network company's digital network or software application; and

(2) that the TNC driver's own insurance policy may not provide coverage while the TNC driver uses a vehicle in connection with a transportation network company digital network depending on its terms.

(g) An insurance policy required by this Section may be placed with an admitted Illinois insurer, or with an authorized surplus line insurer under Section 445 of the Illinois Insurance Code; and is not subject to any restriction or limitation on the issuance of a policy contained in Section 445a of the Illinois Insurance Code.

(h) Any insurance policy required by this Section shall satisfy the financial responsibility requirement for a motor vehicle under Sections 7-203 and 7-601 of the Illinois Vehicle Code.

Section 15. Driver requirements.

(a) Prior to permitting an individual to act as a TNC driver on its digital platform, the TNC shall:

(1) require the individual to submit an application to



the TNC, which includes information regarding his or her address, age, driver's license, driving history, motor vehicle registration, automobile liability insurance, and other information required by the TNC;

(2) conduct, or have a third party conduct, a local and national criminal history background check for each individual applicant that shall include:

(A) Multi-State or Multi-Jurisdictional Criminal Records Locator or other similar commercial nationwide database with validation (primary source search); and

(B) National Sex Offenders Registry database; and

(3) obtain and review a driving history research report for the individual.

(b) The TNC shall not permit an individual to act as a TNC driver on its digital platform who:

(1) has had more than 3 moving violations in the prior three-year period, or one major violation in the prior three-year period including, but not limited to, attempting to evade the police, reckless driving, or driving on a suspended or revoked license;

(2) has been convicted, within the past 7 years, of driving under the influence of drugs or alcohol, fraud, sexual offenses, use of a motor vehicle to commit a felony, a crime involving property damage, or theft, acts of violence, or acts of terror;

(3) is a match in the National Sex Offenders Registry

database;

(4) does not possess a valid driver's license;

(5) does not possess proof of registration for the motor vehicle used to provide TNC services;

(6) does not possess proof of automobile liability insurance for the motor vehicle used to provide TNC services; or

(7) is under 19 years of age.

Section 20. Non-discrimination.

(a) The TNC shall adopt and notify TNC drivers of a policy of non-discrimination on the basis of destination, race, color, national origin, religious belief or affiliation, sex, disability, age, sexual orientation, or gender identity with respect to passengers and potential passengers.

(b) TNC drivers shall comply with all applicable laws regarding non-discrimination against passengers or potential passengers on the basis of destination, race, color, national origin, religious belief or affiliation, sex, disability, age, sexual orientation, or gender identity.

(c) TNC drivers shall comply with all applicable laws relating to accommodation of service animals.

(d) A TNC shall not impose additional charges for providing services to persons with physical disabilities because of those disabilities.

(e) A TNC shall provide passengers an opportunity to

indicate whether they require a wheelchair accessible vehicle. If a TNC cannot arrange wheelchair-accessible TNC service in any instance, it shall direct the passenger to an alternate provider of wheelchair-accessible service, if available.

(f) If a unit of local government has requirements for licensed chauffeurs not to discriminate in providing service in under-served areas, TNC drivers participating in TNC services within that unit of local government shall be subject to the same non-discrimination requirements for providing service in under-served areas.

Section 25. Safety.

(a) The TNC shall implement a zero tolerance policy on the use of drugs or alcohol while a TNC driver is providing TNC services or is logged into the TNC's digital network but is not providing TNC services.

(b) The TNC shall provide notice of the zero tolerance policy on its website, as well as procedures to report a complaint about a driver with whom a passenger was matched and whom the passenger reasonably suspects was under the influence of drugs or alcohol during the course of the trip.

(c) Upon receipt of a passenger's complaint alleging a violation of the zero tolerance policy, the TNC shall immediately suspend the TNC driver's access to the TNC's digital platform, and shall conduct an investigation into the reported incident. The suspension shall last the duration of

the investigation.

(d) The TNC shall require that any motor vehicle that a TNC driver will use to provide TNC services meets vehicle safety and emissions requirements for a private motor vehicle in this State.

(e) TNCs or TNC drivers are not common carriers, contract carriers or motor carriers, as defined by applicable State law, nor do they provide taxicab or for-hire vehicle service.

Section 30. Operational.

(a) A TNC may charge a fare for the services provided to passengers; provided that, if a fare is charged, the TNC shall disclose to passengers the fare calculation method on its website or within the software application service.

(b) The TNC shall provide passengers with the applicable rates being charged and the option to receive an estimated fare before the passenger enters the TNC driver's vehicle.

(c) The TNC's software application or website shall display a picture of the TNC driver, and the license plate number of the motor vehicle utilized for providing the TNC service before the passenger enters the TNC driver's vehicle.

(d) Within a reasonable period of time following the completion of a trip, a TNC shall transmit an electronic receipt to the passenger that lists:

- (1) the origin and destination of the trip;
- (2) the total time and distance of the trip; and

(3) an itemization of the total fare paid, if any.

(e) Dispatches for TNC services shall be made only to eligible TNC drivers under Section 15 of this Act who are properly licensed under State law and local ordinances addressing these drivers if applicable.

(f) A taxicab may accept a request for transportation received through a TNC's digital network or software application service, and may charge a fare for those services that is similar to those charged by a TNC.

Section 35. The Ridesharing Arrangements Act is amended by changing Section 2 as follows:

(625 ILCS 30/2) (from Ch. 95 1/2, par. 902)

Sec. 2. (a) "Ridesharing arrangement" means the transportation by motor vehicle of not more than 16 persons (including the driver):

(1) for purposes incidental to another purpose of the driver, for which no fee is charged or paid except to reimburse the driver or owner of the vehicle for his operating expenses on a nonprofit basis; or

(2) when such persons are travelling between their homes and their places of employment, or places reasonably convenient thereto, for which (i) no fee is charged or paid except to reimburse the driver or owner of the vehicle for his operating expenses on a nonprofit basis, or (ii) a fee is charged in

accordance with the provisions of Section 6 of this Act.

(b) "For-profit ridesharing arrangement" means a ridesharing arrangement for which a fee is charged in accordance with Section 6 of this Act, and does not include transportation network company services under the Transportation Network Providers Act.

(Source: P.A. 83-1091.)

## Ridesharing (uberX) Legislation Principles

Technological advancement frequently outpaces the legislative process. Regulations drafted in the era before smartphones could not have anticipated future technological innovations. Regulations should protect consumer safety--this is crucial--but, they should not be used to protect industries resistant to change. Simply trying to impose a legacy regulatory framework onto the new sharing economy will not work as it will only burden it with the same problems that technology is now capable of solving.

Ridesharing is a technology-centric model of urban transportation. Ridesharing means that drivers provide transportation with their personal vehicle to passengers in need of a ride, all the while bringing competition and innovation to an industry that has not evolved in years. This competition benefits passengers, drivers, and cities, and dramatically raises the safety, quality, and customer service levels offered by the industry.

As ridesharing has matured, many jurisdictions have worked closely with ridesharing companies to draft ridesharing regulations that ensure the protection of the public, while recognizing the inherent differences between ridesharing and the traditional taxi and limousine industries. Typically, these regulations refer to a ridesharing company as a Transport Network Company (TNC).

Ridesharing regulations are based on the following principles:

### **1. Mobile technology powers ridesharing.**

Passengers use smartphone applications to request a ride on-demand from wherever they happen to be and GPS-based technology assigns the ride to the closest driver. Passengers and drivers use technology to communicate and there is no physical intermediary.

### **2. Ridesharing - part of the sharing economy - creates economic opportunity from existing assets.**

Personal vehicles are among the most under-utilized and resource-intensive assets. Ridesharing makes better use of existing vehicles, while creating flexible economic opportunities for thousands of vehicle owners. In doing so, ridesharing dramatically grows the the number of multiple occupancy rides taken, and decreases congestion and pollution in cities.

### **3. Ridesharing is not a full-time commercial activity for most drivers.**

Drivers use their own personal cars and, in many cases, offer ridesharing services on an ad hoc or part-time basis, when they are not otherwise occupied or using their car for personal travel.

### **4. Public safety is paramount.**

Ridesharing is safer than existing for-hire transportation options. All drivers undergo thorough background screening that meets or exceeds existing industry standards. Similarly, all rides are covered with insurance that meets or exceeds current commercial requirements. Reliable and auditable mechanisms also exist to ensure vehicle standards and customer service levels.

### **5. Ridesharing does not allow for street hails or anonymous pickups.**

Passengers connect securely with drivers virtually through smartphone applications in a safe, monitored environment. Upon receipt of a rideshare request, drivers know who their passenger is and can contact them. Passengers can see who their ridesharing driver is, along with their customer rating, licence plate, and car make and model. Lack of anonymity makes ridesharing inherently safer than traditional for-hire transportation.

**6. High quality and standards are enforced through user feedback.**

Reputation is important and cannot be faked in the sharing economy. Riders and drivers are prompted to provide anonymous feedback to each other after each trip. This feedback is used to preemptively identify problems and reward good service. Feedback is monitored at all times and is acted upon quickly. Only users with high ratings are permitted to use the system.

**7. Ridesharing removes the need for transactions or cash.**

At the end of a shared ride, passengers step out of the vehicle and drivers are automatically paid. Smartphone rideshare applications accept credit cards and other forms of electronic payment; they never accept cash which improves the customer experience, reduces traditional taxi crime and eliminates “fare jumping”.

**8. Pricing is transparent and responsive.**

Pricing is always transparent to rideshare passengers. Riders can access accurate fare estimates before a ride begins. Infrequently, when supply of available ridesharing cars on the road is overwhelmed by demand, pricing can increase to bring more cars on the road. Just like electricity grids, the result is better matching of supply to demand. Riders always have the choice whether to accept or reject higher prices during these periods, and have the option to be notified when the price returns to normal should they wish to wait.

**9. Ridesharing technology companies are licensed**

The technology companies that power ridesharing are required to obtain licenses under newly created municipal or provincial business categories. Typically, this new category is called a Transport Network Company (TNC). As technology companies, TNCs can operate in a jurisdiction without a physical presence.

**10. Ridesharing is constantly evolving**

As an emerging economic model for transportation, ridesharing is continually evolving to better serve drivers and riders. Regulatory frameworks that are being applied to ridesharing allow for continued innovation and evolution by regulating safety outcomes and not prescribing business practices. Competition between ridesharing companies increases the choice and level of service offered to drivers and passengers.





## Competition Bureau

[Home](#) > [By Topic](#) > [Advocacy](#)

*by the Competition Promotion Branch*



### Taxi industry's emerging digital dispatch services

**OTTAWA, November 25, 2014** — In recent years, the taxi industry has witnessed the emergence of innovative business models that make use of software applications to efficiently connect passengers with available drivers. These services, known as digital dispatch services, allow customers to use their smartphones to locate nearby drivers, conveniently order their services, and arrange payment.

The Competition Bureau is of the view that these innovative business models have the potential to offer important benefits to consumers through more competition, including lower prices, greater convenience and better service quality for a variety of reasons.

First, digital dispatch services offer an innovative and convenient alternative to traditional methods of arranging urban transportation, such as hailing a taxicab on the street or phoning a traditional dispatcher. This is very convenient for consumers.

In addition, many of the new emerging software applications offer additional features, including payment options and Global Positioning System technology to allow consumers to identify nearby available vehicles and tailor their requests accordingly. While early digital dispatch services generally connected passengers to licensed taxicab drivers, some applications are now facilitating “ride sharing” services that connect passengers to private drivers that wish to offer transport services. These innovative applications benefit consumers in the form of greater convenience and better service quality.

The Bureau is aware that many local municipalities have raised concerns that providers of digital dispatch services, as well as the drivers that use these services, may not be in compliance with local regulations and licensing requirements that govern transportation service providers. For example, the cities of Montreal, Calgary and Vancouver recently disallowed ridesharing services, and other municipalities including the cities of Ottawa and Toronto have taken enforcement action against providers of digital dispatch services. The Bureau believes municipalities

should consider whether prohibitions on digital dispatch services and ridesharing applications are necessary and explore whether less restrictive regulations could adequately address their concerns.

In addition, many stakeholders have also raised concerns about consumer protection issues, including safety and privacy concerns. While the Bureau is not well-placed to assess safety concerns, which may well be legitimate, we are able to highlight to regulators what they give up in terms of reduced competition when these innovative offerings are prohibited. In addition, such regulations should be no broader than what is reasonably necessary to achieve consumer protection objectives.

Over the years, the Bureau has received numerous complaints concerning the taxi industry, including would-be drivers being unable to obtain plates, drivers being forced to deal exclusively with one dispatcher, and service complaints concerning wait times and prices.

The Bureau understands that innovation can be disruptive to existing industries. Recent examples include the real estate and banking industries. However, in order to be successful, not only must the innovators have courage, vision, drive and patience, but markets must be receptive to those efforts.

While urban transportation services that use passenger motor vehicles, including taxicabs, have traditionally been closely regulated by municipalities, the many concerns expressed by municipalities, stakeholders and consumers highlight the importance of ensuring that those responsible for the regulatory oversight over licensing and other relevant competitive factors properly consider the impact their rules and policies have on competition and ultimately, on the prices, choices, and service quality available to consumers.

For more information, please read the [submission the Bureau made to the City of Toronto's Taxicab Industry Review](#) in February 2014.

The Competition Bureau, as an independent law enforcement agency, ensures that Canadian businesses and consumers prosper in a competitive and innovative marketplace.

## Quick Facts

- As part of its mandate, the Bureau participates in a wide range of activities to promote and advocate the benefits of a competitive marketplace, both in Canada and abroad.
- Greater competition generally leads to lower prices for consumers, as well as more consumer choice, a wider range of service options and increased innovation.

## Associated Link

- [Submission by the Commissioner of Competition Provided to the City of Toronto Taxicab Industry Review](#)

*The Competition Advocate* is published by the Competition Bureau's Competition Promotion Branch. It is published periodically and offers the Bureau's views on industries that may benefit from increased competition.



# THE CITY OF THE FUTURE: ONE MILLION FEWER CARS ON THE ROAD

Published on October 3, 2014 at <http://blog.uber.com/city-future>

It's no secret that Uber for many is cheaper than owning a car, but does the impact of the world's safest, most reliable and affordable ride end there? Not even close. This morning at the Institute of Directors Annual Conference in London, Travis explained Uber's vision for a more livable city where our goal isn't to put more cars on the road, but actually to take cars off the road and create even more good jobs and income opportunities for people all around the globe.

Uber has been committed to changing people's lives by revolutionizing urban transportation.

## HERE ARE JUST A FEW WAYS UBER IS CHANGING THE WAY YOU MOVE:

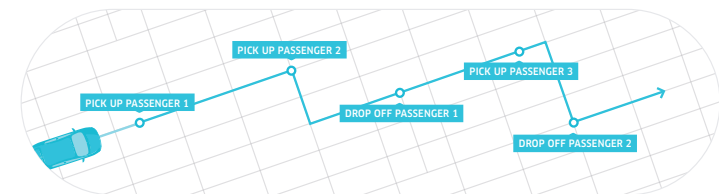
- Reducing traffic congestion, one ride at a time
- Saving you the time and hassle of finding a parking space
- Allowing you to explore new neighborhoods and communities that are otherwise inaccessible by traditional transit
- Bringing back date nights where you can both enjoy a few cocktails and not have to worry about how you'll get home
- Making sure you have a safe and reliable ride within minutes of requesting it after a night on the town or when you find yourself working late
- Serving all communities and neighborhoods with ETA-based dispatch rather than traditional location-based dispatch, ensuring that no rider is rejected because of who they are, where they live, or where they want to go

But we aren't stopping at this—in fact, we're just getting started. Our vision for the City of the Future is one where a major metropolis—whether it's New York, London, Rio or Singapore—has many fewer cars on the road than it does today. Today, Travis talked specifically about London and how it could be possible to take a million cars off the road while at the same time creating 100,000 jobs. But how do you get one million cars off the road in a city where population is increasing? Through a combination of increased peer-to-peer services like uberX and new and innovative features like uberPOOL, not only do we believe this is possible, we welcome the challenge of making it a reality. We believe in a future that looks a whole lot greener, cleaner, and more efficient thanks to fewer cars and more shared rides. We can't wait to start building it together.

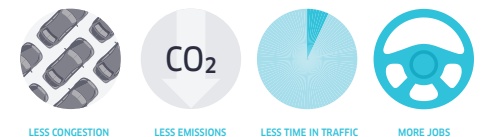
uberPOOL is more efficient than personal cars or taxis. It can move the same number of people while reducing congestion and cars on the road.



Imagine uberPOOL...



1,000,000 fewer cars in London means...



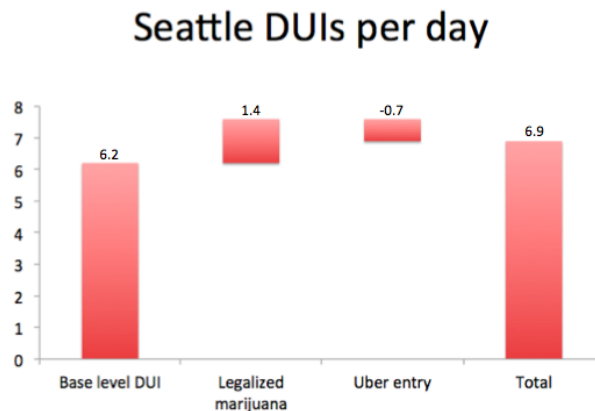
# DUI RATES DECLINE IN UBER CITIES

The availability and affordability of rides on the Uber network provide the residents of Uber-enabled cities with an important alternative to drunk driving. Each drunk driver who is replaced by a safe, professional, and sober partner on Uber’s platform represents a considerable contribution to the welfare of a city such as Chicago. Until now, this benefit has been anecdotal. In order to show how much Uber’s entry in markets has reduced local drunk driving, we built a simple econometric model that uses publicly available data.

In a general purpose research effort, we looked at Seattle as an example city with the most readily available data. Every city differs, but we find that this research strongly suggests that there is a relationship between people’s decision to drink and drive and increased transit options. We can reasonably extrapolate these results and apply them to what we consistently hear from our riders in Chicago and elsewhere.

We estimate that the entrance of Uber in Seattle caused the number of arrests for DUI to decrease **by more than 10%**. These results are robust and statistically significant. The diagram below illustrates the “Uber effect” relative to the baseline of DUIs. We also included the measured impact of legalizing marijuana (see the Details section below for more on this).

## DETAILS



In order to begin studying this important but difficult question, we have assembled drunk driving data from the arrest data made available by the police departments of both San

Francisco and Seattle. In San Francisco, the data is available from the city’s general crime data on their website.<sup>1</sup> We filtered this for DUI according to Category “DRIVING UNDER THE INFLUENCE.” This includes non-alcohol drug arrests for driving under the influence, which we leave in in the main analysis (it makes almost no difference if we filter for only alcohol-related DUIs). Seattle has a traffic crime database<sup>2</sup>, that we filtered for DUI as well. Seattle’s data does not distinguish between alcohol and other drug-related DUIs. Both data sets report a timestamp for each arrest; we accumulated arrests by day in the regressions below.

As a first step, we estimated a simple regression discontinuity that tested whether the incidence of DUI changed in Seattle before and after Uber entered, controlling for a time trend, day of the week effects, and the legalization of marijuana (which seems to have caused a spike in DUI<sup>3</sup>).

**Table 1: Regression Discontinuity Output**

	Estimate	Std. Error	t value	Pr(> t )	
(Intercept)	7.6831716	0.3325283	23.105	< 2e-16	***
day	0.0020233	0.0006459	3.132	0.001771	**
pot.legalTRUE	1.4008270	0.3709933	3.776	0.000167	***
dow1	-0.3791986	0.3180066	-1.192	0.233309	
dow2	-5.0022745	0.3180070	-15.730	< 2e-16	***
dow3	-5.3906180	0.3180069	-16.951	< 2e-16	***
dow4	-4.4926413	0.3180065	-14.128	< 2e-16	***
dow5	-3.5965157	0.3175904	-11.324	< 2e-16	***
dow6	-2.4063536	0.3175890	-7.577	6.62e-14	***
UberTRUE	<b>-0.7074153</b>	0.3533327	-2.002	0.045475	*

*\*Note: In the chart above, the intercept reflected is the average of days for simplicity of display, and the regression in Table 1 displays the intercept for Sunday.*

By this approach, Uber is responsible for approximately -.7 DUIs per day, or more than a 10% reduction overall. However, this approach is inherently weakened by the fact that many things could have caused DUI to go down around the time when Uber entered. In order to test the robustness of this estimate, we use San Francisco as a control city in a “differences-in-differences” framework. The result is consistent:

**Table 2: Differences-in-Differences Output**

	Estimate	Std. Error	t value	Pr(> t )	
(Intercept)	3.0963878	0.2390053	12.955	< 2e-16	***
day	-0.0004305	0.0005177	-0.832	0.405754	
pot.legalTRUE	0.2394509	0.2973542	0.805	0.420735	
seattleTRUE	3.2775153	0.2939764	11.149	< 2e-16	***
dow1	-0.1066047	0.1802320	-0.591	0.554245	
dow2	-2.7942405	0.1802322	-15.504	< 2e-16	***
dow3	-3.0782951	0.1802322	-17.080	< 2e-16	***
dow4	-2.6238256	0.1802320	-14.558	< 2e-16	***
dow5	-2.0917109	0.1799961	-11.621	< 2e-16	***
dow6	-1.3997299	0.1799954	-7.776	1.06e-14	***
UberTRUE	0.0610985	0.2831993	0.216	0.829204	
day:seattleTRUE	0.0024483	0.0007321	3.344	0.000837	***
pot.legalTRUE:seattleTRUE	1.1602775	0.4205196	2.759	0.005835	**
seattleTRUE:UberTRUE	<b>-0.7621283</b>	0.4005019	-1.903	0.057158	.

The advantage of the differences-in-differences approach is that it filters out any random shock that is common to both Seattle and San Francisco, whether or not we observe that randomness in any of the variables in our data sets. While it's still possible that something unrelated to Uber's entrance into Seattle coincidentally caused a change in Seattle's rate of DUI, this approach rules out most coincidences that occurred at a national or regional level.

## CONCLUSION

This simple econometric study provides evidence that Uber's network of safe, readily available rides have a meaningful and measurable impact on drunk driving in cities in which Uber operates freely. While there is plenty of room to explore this topic in future studies, the data confirms the intuitive claim, backed up by countless anecdotes, that potential drunk drivers will choose other options, like rides with Uber, when they are convenient, affordable, and readily available.

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<sup>1</sup><http://apps.sfgov.org/datafiles/index.php?dir=Police>

<sup>2</sup><https://data.seattle.gov/Public-Safety/Traffic-Violations-Accidents-DUIs/csr-v-gf2j>

<sup>3</sup> See, e.g., <http://www.csmonitor.com/USA/Latest-News-Wires/2013/1123/Pot-smokers-arrested-for-DUI-A-record-high-in-Washington>

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## Parking Meter Post Conversion Pilot Project

### Recommendation

That the report of the General Manager, Community Services Department, dated May 11, 2015, be forwarded to City Council for information.

### Topic and Purpose

This report provides information regarding the retrofit of some coin parking meter posts in Downtown, Riversdale, and Broadway Business Improvement Districts (BIDs) as bicycle parking and pedestrian facilities.

### Report Highlights

1. The location and design of the bike racks and pedestrian amenity stations (full stations) was undertaken in consultation with the Downtown, Riversdale, and Broadway BIDs and Cycling Advisory Group.
2. Coin parking meter posts served as an important source of informal bicycle parking in the Downtown, Riversdale, and Broadway BIDs, particularly where other bicycle parking is not available (see Attachment 1).
3. Approximately 1,500 coin parking meter posts are being removed from the Downtown, Riversdale, and Broadway BID areas and are being replaced with FlexParking Pay Stations.
4. The project is initially being launched as a pilot to gauge the reception of the design of the rack and station elements. A total of 45 parking meter posts will be retrofitted with bicycle parking racks. Full stations, containing a fold-down seat and table top, will be installed in modest quantities. As requested by the BIDs, four to five full stations will be installed on top of the bicycle racks in each BID (see Attachment 2). This will leave 10 to 11 plain bicycle racks in each BID (parking meter post and Module B – see Attachment 2). In addition, one full station will be placed along the Protected Bike Lane Demonstration Project on 23<sup>rd</sup> Street. The stations are modular and can be removed from any existing bicycle rack and relocated if the original location is found to be unsuitable.

### Strategic Goals

This report supports the Strategic Goal of Moving Around through the provision of secure and convenient bicycle parking, an essential component of the bicycle network.

The report also supports the Strategic Goal of Sustainable Growth by working collaboratively with stakeholders to enhance walking and cycling facilities in the City of Saskatoon (City) Centre.



## Background

In 2014, City Council approved the FlexParking Pay Stations Program. Installation of the new Parking Pay Stations began in the fall of 2014. Since February 2015, the old coin parking meters have been removed as the new FlexParking Pay Stations are activated.

## Report

### Collaboration and Design of Bike Racks and Stations

The Departments of Transportation & Utilities and Community Services have collaborated with the Downtown, Riversdale, and Broadway BIDs, as well as the Cycling Advisory Group, to formulate a pilot project that will mitigate the loss of bicycle parking, following the removal of coin parking meters in these areas. The Community Standards Division, Parking Services Section, was consulted on this project as well.

### Coin Parking Meters Served Dual Purpose

Coin parking meter posts served as an important source of informal bicycle parking throughout the BID areas, particularly outside buildings where no other bicycle parking facilities are available (see Attachment 1). With the removal of the meter head, the parking meter posts are no longer a functional source of street bicycle parking.

### Existing Parking Meter Posts

Staff from Community Services and Transportation & Utilities Departments reviewed all of the approximately 1,500 parking meter posts. Approximately 800 parking meter posts are suitable for conversion to bicycle parking in the three BID areas. The remaining parking meter posts are being retained in the near term to reserve parking spaces for construction activities and special events. The long-term plan for the remaining posts has yet to be determined.

### Installation of Bike Racks and Stations

The project is initially being launched as a pilot to gauge the reception of the design of the rack and station elements. A total of 45 parking meter posts will be retrofitted with bicycle parking racks. Fifteen bicycle parking racks will be placed in each of the BID areas. Full stations, containing a fold-down seat and table top, will be installed in modest quantities. As requested by the BIDs, four to five full stations will be installed on top of the bicycle racks in each BID (see Attachment 2). This will leave 10 to 11 plain bicycle racks (parking meter post and Module B – see Attachment 2) in each BID. In addition, one full station will be placed along the Protected Bike Lane Demonstration Project on 23<sup>rd</sup> Street. The full stations are modular and can be removed from any existing bicycle rack and relocated if the original location is found to be unsuitable.

Following the pilot installations, additional rack and station location will be identified and elements installed.

**Public and/or Stakeholder Involvement**

The Broadway, Riversdale, and Downtown BIDs were closely consulted as part of the design process. The Cycling Advisory Group has also provided input into the design and implementation of the pilot project.

**Communication Plan**

Each BID will be notified of installation of bicycle parking racks, and staff will continue to work with the BIDs to ensure that bicycle racks and stations are appropriately placed.

**Financial Implications**

The estimated cost of undertaking this project pilot project is \$22,700, plus GST, for materials and installation.

This project will be accommodated within existing capital budgets from the Bike Facilities budget and Urban Design Streetscaping programs.

Materials for the full stations (table top and fold-down seat) will be funded from Urban Design streetscaping budgets for 20<sup>th</sup> Street, 3<sup>rd</sup> Avenue, and general pedestrian amenities. The Bike Facilities budget will fund the 45 bicycle racks.

**Other Considerations/Implications**

There are no options, policy, environmental, privacy, or CPTED implications or considerations.

**Due Date for Follow-up and/or Project Completion**

A progress report will be provided to City Council in the fall of 2016, following the installation of bicycle parking and stations. The report will include a summary of any stakeholder and community feedback received, as well as recommendations for future programming.

**Public Notice**

Public notice, pursuant to Section 3 of Public Notice Policy No. C01-021, is not required.

**Attachments**

1. Example of Informal Bike Parking - Broadway Avenue - July 2011
2. Figures of Bicycle Rack and Pedestrian Amenity Station

**Report Approval**

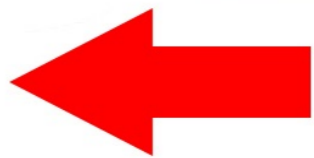
Written by: Vicky Reaney, Planner, Long Range Planning  
Reviewed by: Darryl Dawson, Acting Director of Planning and Development  
Angela Gardiner, Director of Transportation  
Andrew Hildebrandt, Director of Community Standards  
Approved by: Randy Grauer, General Manager, Community Services Department



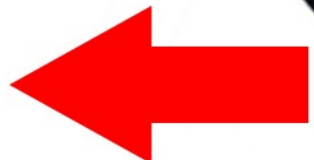
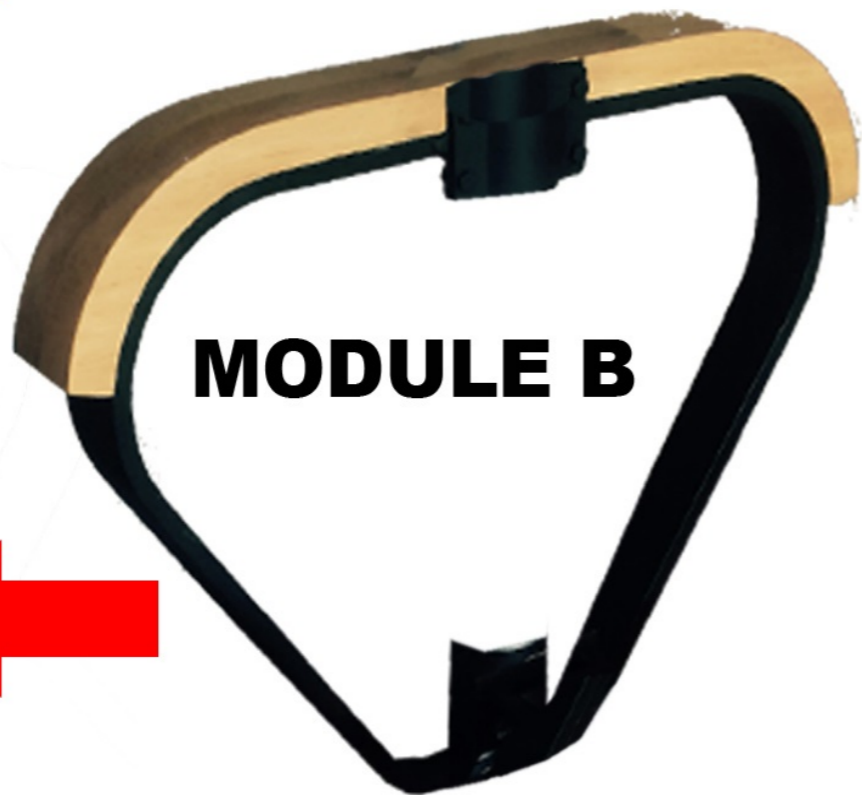
Example of Informal Bike Parking  
Broadway Avenue - July 2011

**PARKING METER POST**

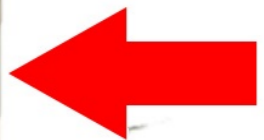
**MODULE A**



**MODULE B**



**MODULE C**



**PEDESTRIAN  
AMENITY  
STATION**

**PLAIN BICYCLE RACK = PARKING METER POST + MODULE B**

**From:** Sean Shaw <info@saskatooncycles.org>  
**Sent:** May 10, 2015 10:45 PM  
**To:** Web E-mail - City Clerks  
**Subject:** Transportation Committee Agenda Item 7.2.1

6120-3  
x 5300-5-5



Submitted on Sunday, May 10, 2015 - 22:45  
Submitted by anonymous user: 204.83.103.11  
Submitted values are:

First Name: Sean  
Last Name: Shaw  
Email: [info@saskatooncycles.org](mailto:info@saskatooncycles.org)  
Confirm Email: [info@saskatooncycles.org](mailto:info@saskatooncycles.org)  
Phone Number: (306) 370-7429

==Your Message==

Service category: City Council, Boards & Committees  
Subject: Transportation Committee Agenda Item 7.2.1

Message:

Saskatoon Cycles would like to submit the following comments in regards to the May 11th Transportation Committee agenda item CK.6120-3 (Parking Meter Post Conversion Pilot Project):

Saskatoon Cycles would like to acknowledge the good forethought and initiative of the Community Services Department for identifying the loss of bicycle parking spots throughout the three BIDs that will occur with the removal of the parking meters this year. For many years, the parking meters have served as defacto parking stations for bikes, especially in high traffic areas like Broadway Ave, 20th St, 2nd Ave and alike - where places to securely lock bikes are far less than the demand - especially in our warmer months.

Saskatoon Cycles, both thru direct discussions and thru our position on the CAG, have been aware of the plan to retrofit the remaining parking meter poles with bike locking stations and we have been very supportive of this idea. However, it was only first brought to our attention this past Thursday (May 7th) that instead of converting approx 600-800 of these poles to bike locking stations this summer that a pilot project of only 45 parking stations would occur for the next two summers, not reporting back until the Fall of 2016.

It has come to Saskatoon Cycles' attention that the portion of the meter pole conversion project that has met with some resistance are the limited number of parking stations that would also include seats/tables and not the regular locking stations for bikes. We are supportive of the BIDs request that these specific stations be demonstrated to ensure they are a good fit

for the streets.

However, we do not think that the basic bike locking stations should be included in such a demonstration - bike parking has been occurring for decades and given that the majority of conversions would just be replacing lost parking spaces there is not need to demonstrate them.

Saskatoon Cycles would urge that the Committee move quickly to ensure that regular bike locking stations are put in place in all three BIDs ASAP this spring/summer. The lose of secure places to lock bikes will strongly discourage people from cycling and shopping in these areas and runs counter to the stated goals of City Council around cycling. Any continued delay on replacing secure parking spots will be a detriment to all those concerned.

Saskatoon Cycles only request for these replacement parking/locking stations is that they are accessible, located appropriately, and are designed to ensure easy/secure locking of bikes. Functionality is more important than aesthetics (though we agree that aesthetics are important to building vibrant streets).

We would like to thank the committee for their time and attention to this important matter and re-iterate our request that replacement of a significant number of secure bike parking/locking facilities for the BID areas be undertaken ASAP this spring/summer.

Regards

Sean Shaw, Board Member  
Saskatoon Cycles  
[www.saskatooncycles.org](http://www.saskatooncycles.org)

Would you like to receive a short survey to provide your feedback on our customer service? The information you share will be used to improve the service we provide to you and all of our customers.:  
No

The results of this submission may be viewed at:  
<https://www.saskatoon.ca/node/405/submission/20038>

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## Varsity View Neighbourhood Traffic Review

### Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:  
That the Neighbourhood Traffic Review for the Varsity View neighbourhood be adopted as the framework for future traffic improvements in the area, to be undertaken as funding is made available through the annual budget process.

### Topic and Purpose

The purpose of this report is to provide information on the Neighbourhood Traffic Review for the Varsity View neighbourhood.

### Report Highlights

1. A traffic plan for the Varsity View neighbourhood was developed, in consultation with the community, to address concerns such as speeding, traffic shortcutting, and pedestrian safety. The plan will be implemented over time as funding for the improvements is available.
2. Clarence Avenue from College Drive to 8<sup>th</sup> Street East will be reviewed as part of an upcoming corridor study.

### Strategic Goal

This report supports the Strategic Goal of Moving Around by providing a plan to guide the installation of traffic calming devices and pedestrian safety enhancements to improve the safety of pedestrians, motorists, and cyclists.

### Background

A public meeting was held in January 2014 to identify traffic concerns and potential solutions within the Varsity View neighbourhood. Representatives from the Saskatoon Police Service were in attendance to address traffic enforcement issues. Based on the residents' input provided at the initial public meeting and the analysis of the traffic data collected, a Traffic Management Plan was developed and presented to the community at a second public meeting held in December 2014.

### Report

The development and implementation of the Traffic Management Plan includes five stages:

1. Identify existing problems, concerns and possible solutions through the initial neighbourhood consultation and the Shaping Saskatoon.ca website;
2. Develop a draft traffic plan based on residents' input and traffic assessments;
3. Present the draft traffic plan to the neighbourhood at a follow-up meeting; circulate the plan to other civic divisions for feedback; make adjustments as needed;

## Varsity View Neighbourhood Traffic Review

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4. Communicate the final plan to the neighbourhood and present the plan to City Council for adoption; and
5. Implement the proposed measures in a specific time frame, short-term (1 to 2 years), medium-term (3 to 5 years), or long-term (more than 5 years).

The majority of concerns included: shortcutting, speeding, pedestrian safety, lack of sidewalks, and parking.

The Administration is recommending the following recommendations to improve safety in the Varsity View neighbourhood:

- Three traffic control upgrades
- Three pedestrian crossing upgrades
- One active pedestrian corridor
- Two parking restrictions
- Two speed limit signs
- Sidewalk installations

Installation of each proposed improvement will be implemented in three specific time frames as follows:

Short-term (1 to 2 years)	Temporary traffic calming measures, signage, pavement markings, accessible pedestrian ramps
Medium-term (3 to 5 years)	Permanent traffic calming devices, roadway realignment, sidewalks (in some cases), major intersection reviews
Long-term (5 years plus)	Permanent traffic calming devices, roadway realignment, sidewalks

The Varsity View Neighbourhood Traffic Review is included in Attachment 1. Concerns related to traffic flows along Clarence Avenue will be reviewed as part of an upcoming corridor review. The timing of this review has not yet been confirmed.

### Public and/or Stakeholder Involvement

In January 2014, a public meeting was held to discuss traffic concerns and identify potential solutions. The feedback was used to develop the neighbourhood traffic plan which was presented at a follow up public meeting in December 2014.

Feedback was provided by internal civic stakeholders of various divisions and departments: Public Works, Saskatoon Transit, Saskatoon Police Service, and the Saskatoon Fire Department on the proposed improvements, which was incorporated into the proposed Traffic Plan.

### Communication Plan

The final neighbourhood traffic plan will be shared with the residents of the impacted neighbourhood using several methods: City website, Community Association communication forums (i.e. website, newsletter), and by a direct mail-out.



### Environmental Implications

The overall impact of the recommendations on traffic characteristics including the impacts on greenhouse gas emissions is not known at this time.

### Financial Implications

The implementation of the neighbourhood traffic plan will have significant financial implications. The costs are summarized in the following table.

Item	2015	Beyond 2015
Speed Signs	\$1,000	-
Marked Pedestrian Crosswalks	3,550	-
Pedestrian Devices	-	\$ 20,000
Stop and Yield Signs	1,400	-
Parking Signs	750	-
Sidewalk	-	389,840
TOTAL	\$6,700	\$409,840

There is sufficient funding within Capital Project #1512 – Neighbourhood Traffic Management to undertake the short term work in 2015.

The remainder of the work, beyond 2015, will be considered alongside all other improvements identified through the Neighbourhood Traffic Management Program. The Administration’s annual budget submission package will include the list of projects recommended to be funded, and the rationale used to prioritize the projects.

### Other Considerations/Implications

There are no options, policy, privacy or CPTED considerations or implications.

### Due Date for Follow-up and/or Project Completion

If adopted by City Council, temporary traffic calming devices and signage will be implemented during the 2015 construction season.

### Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

### Attachment

1. Varsity View Neighbourhood Traffic Review

### Report Approval

Written by: Justine Nyen, Traffic Safety Engineer, Transportation  
Reviewed by: Jay Magus, Engineering Manager, Transportation  
Reviewed by: Angela Gardiner, Director of Transportation  
Approved by: Jeff Jorgenson, General Manager, Transportation & Utilities Department

# City of Saskatoon

## Varsity View Neighbourhood Traffic Review



April 15, 2015

Transportation & Utilities Department

## **Acknowledgements**

The completion of this review would not be possible without the contribution of the following organizations and individuals:

- Varsity View residents
- Varsity View Community Association
- Saskatoon Police Service
- Saskatoon Light & Power
- Saskatoon Fire Department
- City of Saskatoon Environmental Services
- City of Saskatoon Transit
- City of Saskatoon Transportation
- Great Works Consulting
- Councillor Charlie Clark

## Executive Summary

The objective of the Neighbourhood Traffic Management Program is to address traffic concerns within neighbourhoods such as speeding, shortcutting, and pedestrian safety. The program was revised in August 2013 to address traffic concerns on a neighbourhood-wide basis. The revised program involves additional community and stakeholder consultation that provides the environment for neighbourhood residents and City staff to work together in developing solutions that address traffic concerns. The process is outlined in the *Traffic Calming Guidelines and Tools*, City of Saskatoon, 2013.

A public meeting was held in January of 2014 to identify traffic concerns and potential solutions within the Varsity View neighbourhood. As a result of the meeting a number of traffic assessments were completed to confirm and quantify the concerns raised by the residents. Based on the residents input and the completed traffic assessments, a Traffic Management Plan was developed and presented to the community at a follow-up meeting held in December 2014.

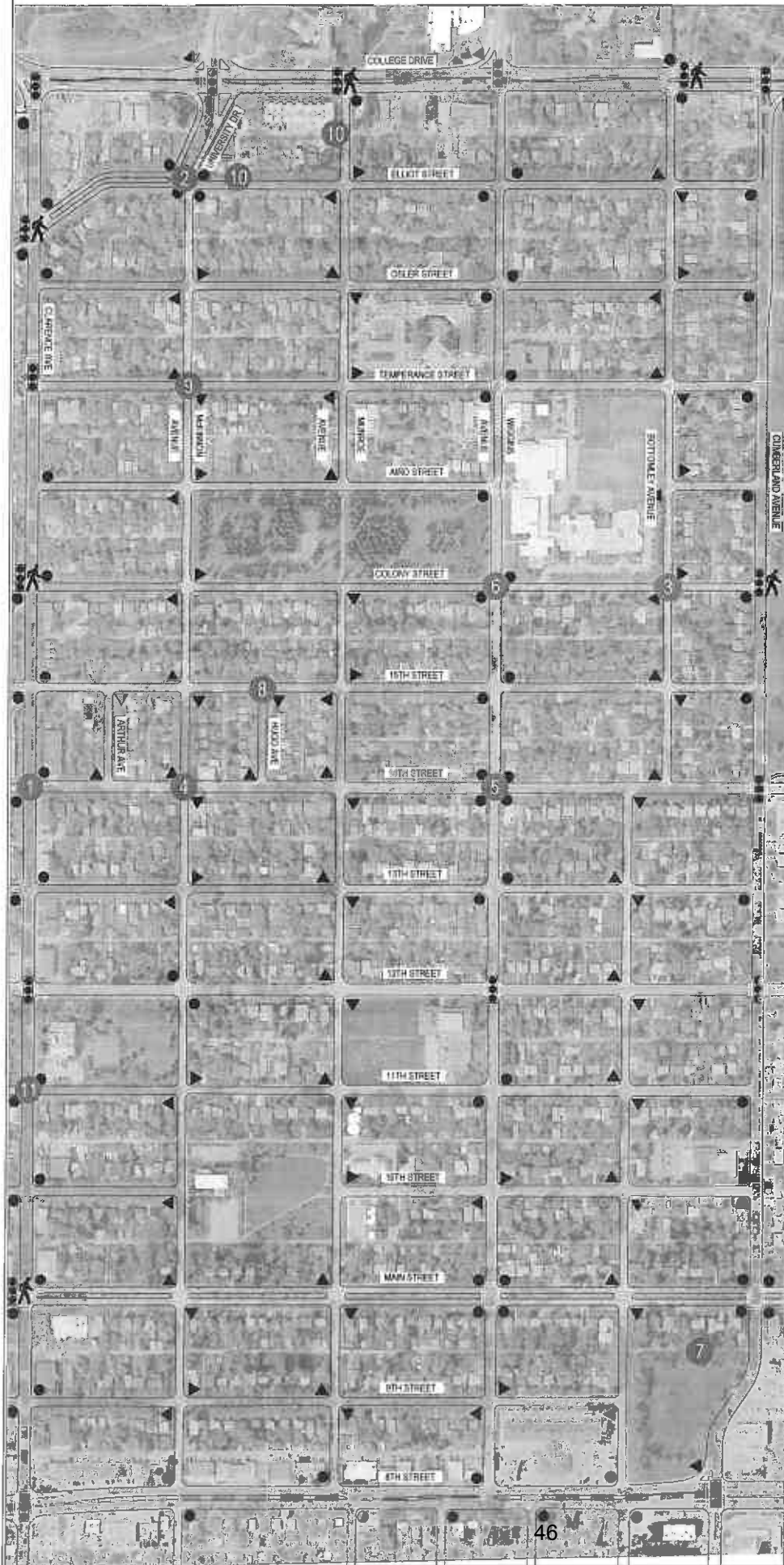
A summary of recommended improvements for the Varsity View neighbourhood are included in **Table ES-1**. The summary identifies the locations, the recommended improvement, and a schedule for implementation. The schedule to implement the Traffic Management Plan can vary depending on the complexity of the proposed improvement. According to the *Traffic Calming Guidelines and Tools* document, the time frame may range from short-term (1 to 2 year); medium-term (3 to 5 years) and long-term (5 years plus). Accordingly, the specific time frame to implement the improvements for these neighbourhoods ranges from 1 to 5 years.

The resulting recommended Varsity View Traffic Management Plan is illustrated in **Exhibit ES-1**.

**Table ES-1: Varsity View Neighbourhood Recommended Improvements**

Location	Recommended Improvement	Time Frame
Clarence Avenue & 14 <sup>th</sup> Street	Zebra crosswalk; advanced pedestrian sign; enhance pedestrian crossing signs	1 to 2 years
University Drive & McKinnon Avenue	Pavement markings to indicate stop lines for 4-way stop	
Colony Street & Bottomley Avenue	Zebra crosswalk	
14 <sup>th</sup> Street & McKinnon Avenue	Stop signs	
Wiggins Avenue & 14 <sup>th</sup> Street	Move northbound "no parking" sign to stop sign is not obstructed	
McKinnon Avenue & Colony Street	"No parking" sign	
Back lane north of park (Cumberland Avenue & Bottomley Avenue)	20kph & playground signs	
Hugo Avenue & 15 <sup>th</sup> Street	"No parking" signs	
Temperance Street & McKinnon Avenue	4-way stop	
Back lane near 1100 block of Elliott Street (and Munroe Avenue)	20kph speed sign	
Clarence Avenue & 11 <sup>th</sup> Street	Active pedestrian corridor	1 to 5 years
Munroe Avenue between 15 <sup>th</sup> Street & Colony Street; Munroe Avenue between Aird Street & Temperance Street; McKinnon Avenue between 15 <sup>th</sup> Street & Colony Street; 11 <sup>th</sup> Street between Clarence Avenue & multi-use trail behind Albert Community Centre; McKinnon Avenue between 10 <sup>th</sup> Street to 11 <sup>th</sup> Street; Munroe Avenue between 11 <sup>th</sup> Street to 12 <sup>th</sup> Street; & Cumberland Avenue between Main Street and back lane (south)	Sidewalk	5 years plus

# VARSITY VIEW TRAFFIC PLAN



## LEGEND

- EXISTING STOP SIGN
- ▼ EXISTING YIELD SIGN
- BUS ROUTE
- EXISTING TRAFFIC SIGNAL
- PEDESTRIAN ACTUATED SIGNAL LOCATION

ITEM	LOCATION	PROPOSED WORK	TIME FRAME
1	Clarence Ave & 14th Street	Zebra crosswalk; advanced pedestrian sign; enhanced pedestrian crossing signs	1 to 2 years
2	University Dr & McKinnon Ave	Pavement markings to indicate stop lines for 4-way stop	1 to 2 years
3	Colony St & Bottomley Ave	Zebra crosswalk	1 to 2 years
4	14th Street & McKinnon Ave	Stop signs	1 to 2 years
5	Wiggins Ave & 14th Street	Move northbound "no parking" sign so stop sign is not obstructed	1 to 2 years
6	McKinnon Ave & Colony Street	"no parking" sign	1 to 2 years
7	Back lane north of park (Cumberland Ave & Bottomley Ave)	20kph & playground signs	1 to 2 years
8	Huge Ave & 15th Street	"no parking" signs	1 to 2 years
9	Temperance St & McKinnon Ave	Stop signs or 4-way stop	1 to 2 years
10	Back lane north of Elliot St & west of Munroe Ave	20kph speed limit signs	1 to 2 years
11	Clarence Ave & 11th Street	Active pedestrian corridor	1 to 5 years

Exhibit ES-1

## TABLE OF CONTENTS

<b>Acknowledgements</b> .....	i
<b>Executive Summary</b> .....	ii
1. Introduction .....	1
2. Identifying Issues, Concerns, & Possible Solutions.....	1
3. Assessment .....	12
4. Plan Development.....	18
5. Recommended Plan and Cost Estimates.....	25

## APPENDICES

- A. All-Way Stop Assessments
- B. Pedestrian Device Assessments
- C. Pedestrian Facilities Map
- D. Recommendation Review Matrix

**LIST OF TABLES**

Table 3-1: City of Saskatoon Street Classifications and Characteristics ..... 13  
Table 3-2: Speed Studies and Average Daily Traffic Counts (2014) ..... 14  
Table 3-3: All-Way Stop Assessments ..... 15  
Table 3-4: Pedestrian Assessment ..... 16  
Table 4-1: Recommended Speeding and Shortcutting Improvements ..... 18  
Table 4-2: Recommended Pedestrian Safety Improvements ..... 19  
Table 4-3: Recommended Traffic Control Improvements ..... 20  
Table 4-4: Recommended Parking Improvements ..... 20  
Table 5-1: Posted Speed Sign Cost Estimate ..... 26  
Table 5-2: Marked Pedestrian Crosswalks Cost Estimate ..... 26  
Table 5-3: Traffic Control Signage – Stop & Yield Cost Estimate ..... 27  
Table 5-4: Parking Signage Cost Estimate ..... 27  
Table 5-5: Sidewalk Cost Estimate ..... 27  
Table 5-6: Total Cost Estimate ..... 28  
Table 5-7: Varsity View Neighbourhood Recommended Improvements ..... 29

**LIST OF EXHIBITS**

Exhibit 4-1: Main Street Short-Cutting Mitigation ..... 22  
Exhibit 5-1: Recommended Varsity View Traffic Management Plan ..... 30



## 1. Introduction

The purpose of this project was to develop a Traffic Management Plan for the Varsity View neighbourhood following the implementation procedure outlined in the *City of Saskatoon Traffic Calming Guidelines and Tools* adopted by City Council in August 2013.

The Varsity View neighbourhood is located on the east side of the South Saskatchewan River and is bound by 8<sup>th</sup> Street to the south, Cumberland Avenue to the east, College Drive to the north, and Clarence Avenue to the west. The area use is mostly residential, with schools (Brunskill School and Bishop Murray School) on Wiggins Avenue, and some commercial land use adjacent to College Drive and 8<sup>th</sup> Street. It houses many University of Saskatchewan students due to its close proximity (to the north).

The development and implementation of the traffic management plan includes four stages:

- **Stage 1** - Identify existing problems, concerns and possible solutions through the initial neighbourhood consultation and the Shaping Saskatoon Website.
- **Stage 2** - Develop a draft traffic plan based on resident's input and traffic assessments.
- **Stage 3** - Present the draft traffic plan to the neighbourhood at a follow-up meeting; circulate the plan to other civic divisions for feedback; make adjustments as needed; and present the plan to City Council for approval.
- **Stage 4** - Implement the proposed measures in specific time frame, short-term (1 to 2 years), medium-term (3 to 5 years) or long-term (5 years plus).

## 2. Identifying Issues, Concerns, & Possible Solutions

A public meeting was held in January of 2014 to identify traffic concerns within the neighbourhood. At the meeting, residents were given the opportunity to express their concerns and suggest possible solutions.

The following pages summarize the concerns and suggested solutions identified during the initial consultation with the neighbourhood residents.

## **CONCERN 1 – SPEEDING AND SHORTCUTTING**

Shortcutting occurs when non-local traffic passes through the neighbourhood on local streets that are designed and intended for low volumes of traffic. In the case of Varsity View, the bordering arterial streets (College Drive, 8<sup>th</sup> Street, Cumberland Avenue, and Clarence Avenue) are designated to accommodate larger traffic volumes.

As speeding often accompanies shortcutting, these concerns have been grouped into one category.

### **Neighbourhood concerns for speeding and shortcutting were at the following locations:**

- Clarence Avenue
- Cumberland Avenue
- Area surrounding Brunskill School
- Main Street (especially near the park on 1400 block)
- Stop & Yield Retrofit Program has created speeding (McKinnon Avenue, Temperance Street)
- McKinnon Avenue – shortcutting during morning peak hours (7:00-9:00am) caused by traffic congestion on Clarence Avenue
- Elliott Street – shortcutting westbound to access University Drive and Royal University Hospital (RUH) from Wiggins Avenue
- 9<sup>th</sup> Street – delivery trucks using route instead of 8<sup>th</sup> Street; shortcutting between Louise Avenue & Clarence Avenue
- 14<sup>th</sup> Street
- University Drive
- Back lane on 1100 block of Elliott Street (near J. Black Estates to University Drive)

### **Proposed solutions identified by residents:**

- Install traffic calming (i.e. speed humps, curb extensions)
- Install diverters (McKinnon Avenue)
- Install stop signs
- Install 4-way stop (Temperance Street & McKinnon Avenue)
- Implement 30-40kph speed limit

## CONCERN 2 - PEDESTRIAN SAFETY

It is important to address pedestrian safety concerns to support active transportation. Walking to nearby amenities, as opposed to driving, reduces traffic volumes.

Pedestrian crosswalks need to adhere to the City of Saskatoon Council Policy C07-018 *Traffic Control at Pedestrian Crossings*, November 15, 2004 which states the following:

“The installation of appropriate traffic controls at pedestrian crossings shall be based on warrants listed in the document entitled “Traffic Control at Pedestrian Crossings – 2004” approved by City Council in 2004.”

**Neighbourhood concerns regarding pedestrian safety were at the following locations:**

- Clarence Avenue - 11<sup>th</sup> Street - lots of children use crosswalk; 14<sup>th</sup> Street – drivers not stopping for pedestrians; drivers can't see pedestrians over hill
- Albert Community Centre – daycare and lots of children playing in the area
- Cumberland Avenue – pedestrians aren't visible; there's a playground at the front of the Williams Building with many children; drivers don't stop for pedestrians at the crossing in front of the Williams Building
- Wiggins Avenue & 14<sup>th</sup> Street – 4-way stop has had adverse effects on pedestrian safety; drivers not paying attention to pedestrians
- College Drive & Bottomley Avenue

**Proposed solutions identified by residents:**

- Install crosswalk light / pedestrian device (Clarence Avenue & 11<sup>th</sup> Street; Clarence Avenue & 14<sup>th</sup> Street; Clarence Avenue & Elliott Street)
- Implement school zone around Albert Community Centre
- Install zebra crosswalk
- Implement “children at play” speed zone (near Albert Community Centre)
- Install concrete pad for pedestrians (Clarence Avenue & 14<sup>th</sup> Street)
- Install traffic calming (surrounding Brunskill School)
- Install sidewalks (Wiggins Avenue, Munroe Avenue, Temperance Street, Aird Street, Colony Street, 14<sup>th</sup> Street, 11<sup>th</sup> Street, 10<sup>th</sup> Street, 8<sup>th</sup> Street)
- Improve crosswalk markings (Wiggins Avenue & 14<sup>th</sup> Street)
- Install lighting for visually-impaired (Wiggins Avenue & Temperance Street)

### CONCERN 3 - TRAFFIC CONTROL

Traffic control signs are used in order to assign the right-of-way and must meet guidelines in City of Saskatoon Council Policy C07-007 *Traffic Control – Use of Stop and Yield Signs*, January 26, 2009 which states that stop and yield signs are not to be used as speed control devices, to stop priority traffic over minor traffic, on the same approach to an intersection where traffic signals are operational, or as a pedestrian crossing device.

An all-way stop must meet the conditions for traffic volume, collision history, and must have a balanced volume from each leg to operate sufficiently.

**Proposed solutions identified by residents:**

- Install signals (Clarence Avenue & University Drive)
- Eliminate option to cross Clarence Avenue (i.e. barriers) at 9<sup>th</sup> Street, 10<sup>th</sup> Street, 11<sup>th</sup> Street
- Install stop signs (Main Street)
- Install 4-way stop

## CONCERN 4 – PARKING

Parking is allowed on all city streets unless signage is posted. According to City of Saskatoon Bylaw 7200, *The Traffic Bylaw*, December 16, 2013, vehicles are restricted from parking within 10 metres of an intersection and one metre of a driveway crossing.

### **Neighbourhood concerns regarding parking were at the following locations:**

- Wiggins Avenue & Main Street - parking is too close to intersection making it difficult to see on Wiggins Avenue
- Parking on both sides makes road narrow (McKinnon Avenue, Elliott Street)
- Visibility obstructed due to parking (Munroe Avenue & 12<sup>th</sup> Street)
- Cheaper to park on street than University of Saskatchewan (UofS)
- University students parking on 15<sup>th</sup> Street near condos are parking within 1m of driveways and 10m of intersection
- Parking restricted zone does not account for the approximately 100 on-street parking spaces adjacent to President Murray Park
- Residents pay for parking while non-residents park for free
- Constant turn-over of vehicles due to the 2-hour time limit; increased traffic flows
- More wear and tear on existing infrastructure due to consistent turn-over of cars
- LutherCare issuing parking permits to staff and visitors
- No maximum number of permits for single family homes, thus homes with multiple students living in them may all qualify (Residential Parking Permit Program – RPP)

**Proposed solutions identified by residents:**

- Main Street & Wiggins Avenue – increase parking restricted zone in front of stop sign or better enforce
- More parking should be provided on University and RUH property
- Issue two tier parking fees
- More parking enforcement
- Expand parking permit zone to at least 14<sup>th</sup> Street
- Restrict parking at T-intersections of park
- More restrictive parking limits, especially on weekends (Osler Street, Elliott Street)
- Cumberland Avenue – either remove parking or more enforcement; implement 2-hr parking on east side farther south to 14<sup>th</sup> Street
- Install “no parking” signs (Wiggins Avenue)
- Increase ticket price
- Install more time restricted parking (include blocks surrounding park and Brunskill School in the 1 and 2-hr regulated parking area)
- Install “no parking” signs at corners of park that identify minimum distance from intersection that vehicles are permitted, and near pathway to improve visibility for pedestrians; increase the “no parking” zones at the north and south access points of President Murray Park on Aird Street and Colony Street to 50m (25m in both directions from center of pathway) to improve sightlines
- City of Saskatoon and the University develop partnership to ensure fine structure for violations are comparable
- Parking enforcement report to Community Association to give update on parking violations statistics and changes
- Encourage more participation in the eco-pass program for LutherCare communities and staff to decrease the number of parking on a daily basis.
- City of Saskatoon work with RUH to increase transit ridership and decrease parking demand
- ‘Parking for sale’ – mail out information reminding property owners that sale of parking on residential is illegal; enforcement will investigate after.

## CONCERN 5 – CYCLING

Cycling is a practical mode of transportation in Varsity View, as the neighbourhood is in close proximity to the downtown, the University of Saskatchewan, and other nearby amenities.

### **Neighbourhood concerns regarding cycling were at the following locations:**

- Cyclists riding on sidewalk and not yielding to pedestrians
- Alternating yield signs (Stop & Yield Retrofit Program) do not improve cyclist connectivity

### **Proposed solutions identified by residents:**

- Install a multi-use path (Cumberland Avenue - on east side from 14<sup>th</sup> Street to Colony Street; College Drive)
- Cyclist signage needed
- Cycling education campaign
- Dedicated cycling routes - better signage, larger, location, cut tree branches (14<sup>th</sup> Street, Bottomley Avenue, McKinnon Avenue, Munroe Avenue)
- Better bike lanes needed

## **CONCERN 6 – MAINTENANCE**

Condition of the streets in Varsity View was identified as a concern (i.e. snow clearing, potholes, tree trimming, and temporary traffic calming devices).

**Neighbourhood concerns regarding maintenance were:**

- Bus stop maintenance required on Cumberland Avenue near Main Street and Clarence Avenue near College Drive
- Snow removal and shaving ruts causes narrow lanes and pushes parking away from curb
- Snow on sidewalk (Clarence Avenue)
- Snow piled on boulevard (Munroe Avenue, College Drive)



## CONCERN 7 – MAJOR INTERSECTIONS

Major intersections include roadways with higher traffic volumes (i.e. arterials, collectors) or intersections with an existing traffic signal.

### Neighbourhood concerns regarding major intersections:

- Clarence Avenue & 12<sup>th</sup> Street – light is too short and too many drivers are turning right making it difficult to cross

### Proposed solutions identified by residents:

- Improve traffic signal timing (Clarence Avenue & 12<sup>th</sup> Street, 8<sup>th</sup> Street)
- Install dedicated left turn intersections with traffic signals (Cumberland Avenue & 8<sup>th</sup> Street)
- Install dedicated turning lanes (Wiggins Avenue & College Drive)

## CONCERN 8 – CLARENCE AVENUE & MAIN STREET REVIEW

The intersection of Clarence Avenue and Main Street was reviewed in 2013, and included collecting traffic and pedestrian volumes, assessing collision data, and analysis of operational and safety conditions.

Clarence Avenue is a major arterial roadway with a traffic volume of approximately 11,250 vehicles per day, and Main Street is a local street carrying up to 2,500 vehicles per day, substantially more than acceptable for a local street, which typically carries up to 1,000 vehicles per day. It was determined that approximately 50% of traffic on Main Street was not turning off of Main Street at Clarence Avenue, but were simply making a through movement. As a result, Main Street has been a generator of traffic collisions at the intersection with Clarence Avenue (84 collisions reported in the past five years, 43% right angle collisions).

An effective and practical measure is to prohibit through and left turn movements on Main Street at Clarence Avenue. To force the movements, the median on Main Street would need to be modified to physically prevent cross traffic and left turn movements and to force right turns onto Clarence Avenue. It is anticipated that this measure would reduce traffic volume on Main Street by approximately 50% and would also reduce the number of collisions at this intersection by 46%.

The proposed measure was presented to residents during the initial public consultation and mixed support was received.

### **Neighbourhood concerns regarding the proposed measure to prohibit through and left turn movements at Clarence Avenue & Main Street:**

- Proposed measure will divert traffic onto 9<sup>th</sup> Street & 10<sup>th</sup> Street
- In favour of restrictions on Clarence Avenue - may decrease traffic flow on Main Street and slow traffic
- No issues at the intersection; leave as is
- Many condos on Main Street are resulting in high traffic volumes
- Drivers will continue to drive straight through regardless of changes

**Proposed solutions identified by residents:**

- Install full traffic signals
- Move the right-in right-out islands to Cumberland Avenue & Main Street
- Install flashing yellow lights (at all times) to slow down drivers

### 3. Assessment

Stage 2 of the plan development included developing a draft traffic management plan. This was completed through the following actions:

- Create a detailed list of all the issues provided by the residents.
- Collect historical traffic data and information the City has on file for the neighbourhood.
- Prepare a data collection program that will provide the appropriate information needed to undertake the assessments.
- Complete the data collection, which may include:
  - Intersection turning moving counts
  - Pedestrian counts
  - Daily and weekly traffic counts
  - Average speed measurements
- Assess the issues by using the information in reference with City policies, bylaws, and guidelines, transportation engineering design guidelines and technical documents, and professional engineering judgement.

The following sections provide details on the data collected for traffic volumes (peak hours, daily, and weekly), travel speed, and pedestrian movements.

#### 1. Traffic Volumes and Travel Speeds

Traffic volumes and travel speeds were measured to assist in determining the need for traffic calming devices. In Saskatoon the neighbourhood streets are classified typically as either local or collector streets. Traffic volumes (referred to as Average Daily Traffic) on these streets should meet the City of Saskatoon guidelines shown in **Table 3-1**.

**Table 3-1: City of Saskatoon Street Classifications and Characteristics**

Characteristics	Classifications					
	Back Lanes		Locals		Collectors	
	Residential	Commercial	Residential	Commercial	Residential	Commercial
Traffic function	Access function only (traffic movement not a consideration)		Access primary function (traffic movement secondary consideration)		Traffic movement and land access of equal importance	
Average Daily Traffic (vehicles per day)	<500	<1,000	<1,000	<5,000	<5,000	8,000-10,000
Typical Speed Limits (kph)	20		50		50	
Transit Service	Not permitted		Generally avoided		Permitted	
Cyclist	No restrictions or special facilities		No restrictions or special facilities		No restrictions or special facilities	
Pedestrians	Permitted, no special facilities		Sidewalks on one or both sides	Sidewalks provided where required	Typically sidewalks provided both sides	Sidewalks provided where required
Parking	Some restrictions		No restrictions or restriction on one side only		Few restrictions other than peak hour	

Travel speeds were measured to determine the 85<sup>th</sup> percentile speed, which is the speed at which 85 percent of vehicles are travelling at or below. The speed limit in the Varsity View area is 50kph, except for school zones where the speed limit is 30kph from September and June, 8:00am to 5:00pm, excluding weekends.

The speed studies and Average Daily Traffic (ADT) on streets where speeding was identified as an issue are summarized in **Table 3-2**.

**Table 3-2: Speed Studies and Average Daily Traffic Counts (2014)**

Street	Between	Class	Average Daily Traffic (vpd)	Speed (kph)
Main Street - back lane 1400 block	Cumberland Avenue & Ewart Avenue	back lane	242	NA
Elliott Street - back lane 1100 block	McKinnon Avenue & Munroe Avenue		<50	31.9
Elliott Street	McKinnon Avenue & Munroe Avenue	local	830	38.4
Bottomley Avenue	Colony Street & Aird Street		<200	40.4
McKinnon Avenue	15 <sup>th</sup> Street & Colony Street		515	36.7
Main Street	McKinnon Avenue & Munroe Avenue		2,000	51.4
University Drive	Clarence Avenue & McKinnon Avenue	local (commercial)	1,700	33.5
Cumberland Avenue	Aird Street & Temperance Street	minor arterial	7,190	52.1
Clarence Avenue	15 <sup>th</sup> Street & Colony Street	major arterial	7,500	56
Clarence Avenue	10 <sup>th</sup> Street & 11 <sup>th</sup> Street		7,744	55
14 <sup>th</sup> Street	McKinnon Avenue & Munroe Avenue	local	Error	
McKinnon Avenue	11 <sup>th</sup> Street & 12 <sup>th</sup> Street			
9 <sup>th</sup> Street	Clarence Avenue & McKinnon Avenue			

**2. Traffic Control Assessments**

Yield, stop, and all-way stop controls need to meet City of Saskatoon Council Policy C07-007 *Traffic Control – Use of Stop and Yield Signs*, January 26, 2009.

Turning movement counts were completed to determine the need for an all-way (i.e. three-way or four-way) stop control. Criteria outlined in Council Policy C07-007 that may warrant an all-way stop include a peak hour count greater than 600 vehicles or an ADT greater than 6,000 vehicles per day. Further conditions that must be met for an all-way stop to be warranted are:

1. Traffic entering the intersection from the minor street must be at least 35% for a 4-way stop and 25% for a 3-way stop.
2. No other all-way stop or traffic signals within 200m.

Results of the studies are shown in **Table 3-3**.

**Table 3-3: All-Way Stop Assessments**

Location	Peak Hour Count	Average Daily Traffic (vpd)	# of Collisions within most recent 12 months	% of Traffic from minor street	Traffic Signals or all-way stop within 200m	All-Way Stop Warrant
Colony Street & Bottomley Street	148	1,580	1	40%	no	All-Way Stop Not Warranted
Cumberland Avenue & Osler Street	792	8,150	0	8%	no	
Temperance Street & McKinnon Avenue	82	920	4	49%	Yes (165m from traffic signals at Clarence Avenue)	Continue assessment due to high collisions

Details of the all-way stop assessments are provided in **Appendix A**.

### 3. Pedestrian Assessments

Pedestrian assessments are conducted to determine the need for pedestrian actuated signalized crosswalks which, in adherence to the City of Saskatoon Council Policy C07-018 *Traffic Control at Pedestrian Crossings*, November 15, 2004, are typically active pedestrian corridor (flashing yellow lights) or pedestrian-actuated signals. A warrant system assigns points for a variety of conditions that exist at the crossing location, including:

- The number of traffic lanes to be crossed;
- the presence of a physical median;
- the posted speed limit of the street;
- the distance the crossing point is to the nearest protected crosswalk point; and
- the number of pedestrian and vehicles at the location.

Pedestrian and traffic data is collected during the five peak hours of: 8:00am-9:00am, 11:30am-1:30pm, and 3:00pm-5:00pm.

In addition, if a pedestrian actuated crosswalk is not warranted, a standard marked pedestrian crosswalk, or a zebra crosswalk (i.e. striped) may be considered. A summary of the pedestrian studies are provided in **Table 3-4**.

**Table 3-4: Pedestrian Assessment**

Location	Number of Pedestrians Crossing During Peak Hours	Results
Bottomley Avenue & Colony Street	150	Pedestrian Devices Not Warranted
Cumberland Avenue & Elliott Street	30	
Cumberland Avenue & Osler Street	45	
Cumberland Avenue & Aird Street	38	
Clarence Avenue & 14 <sup>th</sup> Street	39	
Clarence Avenue & 11 <sup>th</sup> Street	84	Pedestrian Device Warranted



As a result of the assessment, an Active Pedestrian Corridor is recommended at the intersection of Clarence Avenue and 11<sup>th</sup> Street. Details of the pedestrian device assessments are provided in **Appendix B**.

A map of the existing pedestrian facilities was also reviewed to determine connectivity to and from amenities throughout the neighbourhood. A pedestrian facilities map is provided in **Appendix C**.

## 4. Plan Development

Stage 3 of the review included finalizing the recommended plan. This was achieved by completing the following steps:

- Based on the assessments, prepare a plan that illustrates the appropriate recommended improvement
- Present the draft plan to the residents at a follow-up public meeting
- Circulate the draft plan to the Civic Divisions for comment
- Revise the draft plan based on feedback from the stakeholders
- Prepare a technical document summarizing the recommended plan and project process

The tables in the following sections provide the details of the recommended traffic management plan, including the location, recommended improvement, and the justification of the recommended improvement.

### 1. Speeding and Shortcutting

As stated in Council Policy C07-007 *Traffic Control – Use of Stop and Yield Signs*, January 26, 2009, “stop signs are not to be used as speed control devices.”

The recommended improvements to address speeding and shortcutting are detailed in **Table 4-2**.

**Table 4-1: Recommended Speeding and Shortcutting Improvements**

Location	Recommended Improvement	Justification
Back lane - 1100 block of Elliott Street & Munroe Avenue	20kph speed sign	Reduce speed
Back lane north of park (Cumberland Avenue & Bottomley Avenue)	20kph speed sign	Reduce speed

High traffic volumes and speeding were noted on Main Street and Clarence Avenue. More information is provided in the “Main Street Shortcutting” and “Major Intersections and Corridor Studies” sections below.

## 2. Pedestrian Safety

The recommended improvements to increase pedestrian safety are detailed in **Table 4-2**.

**Table 4-2: Recommended Pedestrian Safety Improvements**

Location	Recommended Improvement	Justification
Clarence Avenue & 14 <sup>th</sup> Street	Zebra crosswalk; advanced pedestrian sign; enhance pedestrian crossing signs	Improve pedestrian safety along transit route
Colony Street & Bottomley Avenue	Zebra crosswalk	Improve pedestrian safety near elementary school (connects to pedestrian-activated signals at Cumberland Avenue)
Back lane north of park (Cumberland Avenue & Bottomley Avenue)	Playground signs	Improve pedestrian safety near park
Clarence Avenue & 11 <sup>th</sup> Street	Active pedestrian corridor	Improve pedestrian safety along transit route, near playground, daycare, community centre, & grocery store
Munroe Avenue between 15 <sup>th</sup> Street & Colony Street and between Aird Street & Temperance Street; 11 <sup>th</sup> Street; 12 <sup>th</sup> Street	Sidewalk	Improve pedestrian connectivity along route to University; near park
McKinnon Avenue between 15 <sup>th</sup> Street & Colony Street and 10 <sup>th</sup> Street & 11 <sup>th</sup> Street	Sidewalk	Improve pedestrian connectivity along route to University; near park
11 <sup>th</sup> Street between Clarence Avenue & multi-use trail behind Albert Community Centre	Sidewalk	Improve pedestrian connectivity to park, playground, community centre, grocery store, & transit
Cumberland Avenue between Main Street and back lane (south)	Sidewalk	Improve pedestrian connectivity along transit route & to University

### 3. Traffic Control

The recommended improvements to intersections that will improve the level of safety by clearly identifying the right-of-way through traffic controls are provided in **Table 4-3**.

**Table 4-3: Recommended Traffic Control Improvements**

<b>Location</b>	<b>Recommended Improvement</b>	<b>Justification</b>
University Drive & McKinnon Avenue	Pavement markings to indicate stop lines for 4-way stop	Enhance compliance
14 <sup>th</sup> Street & McKinnon Avenue	Stop signs	Current north-south yield signs (installed as part of Stop & Yield Retrofit Program in fall 2013) have created thoroughfare; alter direction of signs and change to stop signs to enhance compliance
Temperance Street & McKinnon Avenue	4-way stop	Reduce collisions

### 4. Parking Improvements

The recommended improvements to parking that will improve the level of safety are detailed in **Table 4-4**.

**Table 4-4: Recommended Parking Improvements**

<b>Location</b>	<b>Recommended Improvement</b>	<b>Justification</b>
McKinnon Avenue & Colony Street	"No parking" sign	Enhance visibility
Hugo Avenue & 15 <sup>th</sup> Street	"No parking" signs	Enhance visibility

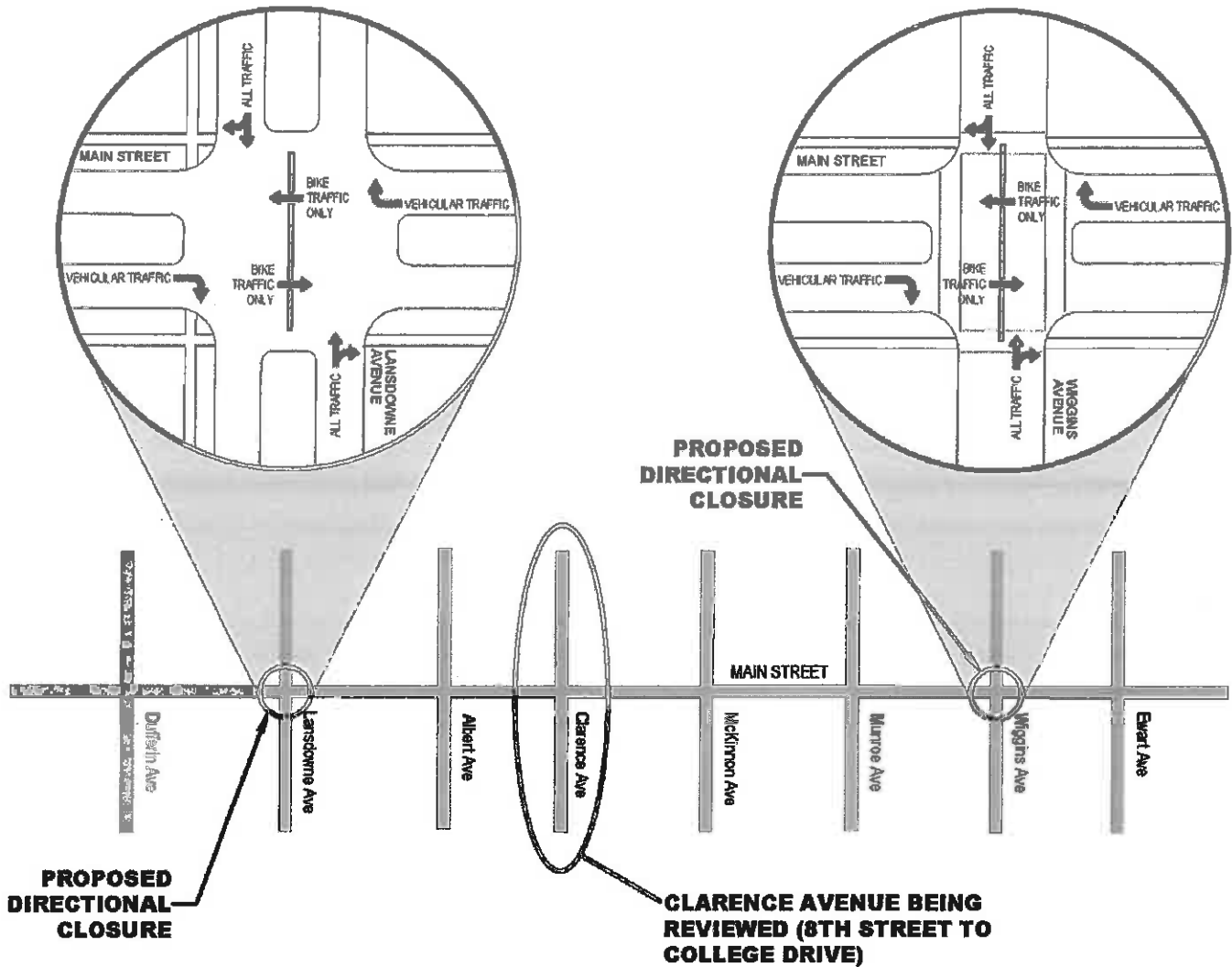
## 5. Cycling Improvements

The Active Transportation Plan is a comprehensive city-wide study that will help to provide more choices for moving around Saskatoon by addressing community and infrastructure needs for cycling, walking, and other modes of active transportation. All comments received during the public consultation were forwarded to the project leader for further consideration.

## 6. Main Street Shortcutting

Main Street shortcutting between Cumberland Avenue and Broadway Avenue was identified as a concern during the public consultation for both the Nutana and Varsity View neighbourhoods. The proposed design to prohibit left and through movements at Clarence Avenue and Main Street, in general, was not supported by residents.

The Administration proposed another recommendation to mitigate the short-cutting along Main Street in March and April of 2015. The proposal included installing a raised curb to restrict east-west vehicular movement through the intersection of Main Street and Wiggins Avenue. Curb cuts would be installed to permit the movement of bicycles and pedestrians through the intersection. Vehicles would be permitted to turn right only arriving at the intersection from the east or west. Vehicles arriving at the intersection from the north or south would not be permitted to turn left. The proposal outlined that this restriction would be installed in a temporary fashion, and evaluated after one year. A similar recommendation for the intersection of Main Street and Lansdowne Avenue is provided in the Nutana Neighbourhood Traffic Review report. A sketch of the proposed restriction is illustrated in **Exhibit 4-1**.



**Exhibit 4-1: Main Street Short-Cutting Mitigation**

Letters were sent to the residents of dwellings that front Main Street in Varsity View between Clarence Avenue and Cumberland Avenue for their feedback. In Varsity View 122 letters were mailed out, and 12 responses returned with 8 indicating support and 4 not in support. As a result the proposed recommendation is carried forward.

The effect of the change will be evaluated after one year and a recommendation to either install permanent curbing or remove the temporary curbing will be provided.

It is not expected that much traffic will be displaced to either 10<sup>th</sup> Street or 9<sup>th</sup> Street. The Raoul Wallenberg Park intercepts 10<sup>th</sup> Street between Munroe Avenue and

McKinnon Avenue, causing 10<sup>th</sup> Street not to be an attractive alternate route due to the lack of connection. 9<sup>th</sup> and 10<sup>th</sup> Streets are not as attractive to drivers as they are both narrow undivided local streets when compared with Main Street, a divided road that is easier to drive.

### 7. Cumberland Avenue – College Quarter Improvements

Traffic conditions, cyclist and pedestrian safety, and parking on Cumberland Avenue between 14<sup>th</sup> Street and College Drive will be addressed as part of the College Quarter Plan.

### Follow up Consultation – Presentation of Traffic Management Plan

The initial recommended improvements were presented at a follow-up public meeting in December 2014. Recommended improvements that were not supported by the residents were eliminated or altered accordingly. A decision matrix detailing the list of recommended improvements presented at the follow-up meeting are included in **Appendix D**. A decision matrix for additional comments received after the draft traffic plan is also included in **Appendix D**.

The recommendations were circulated to the Civic Divisions (including Saskatoon Police Service, Saskatoon Light & Power, Saskatoon Fire Department, Environmental Services, and Transit) to gather comments and concerns. General support was received.

### Major Intersection Reviews and Corridor Studies

The mandate for the Neighbourhood Traffic Management Reviews is to focus on neighbourhood streets such as local roads and collector roads. As almost all neighbourhoods are bound by arterial streets, such as Clarence Avenue or 8<sup>th</sup> Street, it is not uncommon to have residents raise issues regarding these streets. However, arterial streets are much more complex than local or collector streets due to larger traffic volumes, different types of drivers (commuters), coordinated traffic signals, transit accommodation, and potentially many commercial accesses. To properly address these, the typical transportation engineering approach would require a corridor study or a major intersection review, both of which are expensive and require significant resources. Through the Neighbourhood Traffic Reviews, the City is compiling a list of issues on arterial streets. The Transportation Division is working to prioritize the issues,

identify the work requirements, and secure funding to complete these types of assessments.

A number of concerns were raised for Clarence Avenue, particularly the intersection at 8<sup>th</sup> Street. As such, a corridor study is recommended for Clarence Avenue between 8<sup>th</sup> Street and College Drive, and will be added to the list of Corridor Studies.



## 5. Recommended Plan and Cost Estimates

Stage 4, the last stage of the process, is to install the recommended improvements for the Varsity View neighbourhood within the specified timeframe. The timeframe depends upon the complexity and cost of the solution. A short-term time frame is defined by implementing the improvements within 1 to 2 years; medium-term is 3 to 5 years; and long-term is 5 years plus.

The placement of signage will be completed short-term (1 to 2 years).

Major intersection reviews are based on the number of other locations to be reviewed city-wide and the availability of funding. The timeline for review will be medium-term (3 to 5 years).

The estimated costs of the improvements included in the Neighbourhood Traffic Management Plan are outlined in the following tables:

- **Table 5-1: Posted Speed Sign Cost Estimate**
- **Table 5-2: Marked Pedestrian Crosswalks Cost Estimate**
- **Table 5-3: Traffic Control Signage – Stop & Yield Cost Estimate**
- **Table 5-4: Parking Signage Cost Estimate**
- **Table 5-5: Sidewalk Cost Estimate**
- **Table 5-6: Total Cost Estimate**

**Table 5-1: Posted Speed Sign Cost Estimate**

Location	Device(s)	Cost Estimate	Time Frame
Back lane - 1100 block of Elliott Street & Munroe Avenue	20kph speed sign	\$500	1 to 2 years
Back lane north of park (Cumberland Avenue & Bottomley Avenue)	20kph speed sign	\$500	
<b>Total</b>		<b>\$1,000</b>	

**Table 5-2: Marked Pedestrian Crosswalks Cost Estimate**

Location	Device(s)	Cost Estimate	Time Frame
Clarence Avenue & 14 <sup>th</sup> Street	Zebra crosswalk; advanced pedestrian sign; enhance pedestrian signs	\$1,650	1 to 2 years
Colony Street & Bottomley Avenue	Zebra crosswalk	\$1,400	
Back lane north of park (Cumberland Avenue & Bottomley Avenue)	Playground signs	\$500	
Clarence Ave & 11 <sup>th</sup> Street	Active pedestrian corridor	\$20,000	1 to 5 years
<b>Total</b>		<b>\$23,550</b>	

The operating cost on an annual basis to maintain a crosswalk is approximately \$60 each.

**Table 5-3: Traffic Control Signage – Stop & Yield Cost Estimate**

Location	Device(s)	Number of Signs	Cost Estimate	Time Frame
University Drive & McKinnon Avenue	Pavement markings	0	\$400	1 to 2 years
14 <sup>th</sup> Street & McKinnon Avenue	Stop signs	2	\$500	
Temperance Street & McKinnon Avenue	4-way stop	2	\$500	
<b>Total</b>			<b>\$1,400</b>	

**Table 5-4: Parking Signage Cost Estimate**

Location	Device(s)	Number of Signs	Cost Estimate	Time Frame
Wiggins Avenue & 14 <sup>th</sup> Street	Move northbound "no parking" sign to stop sign is not obstructed	0	\$0	1 to 2 years
McKinnon Avenue & Colony Street	"No parking" sign	1	\$250	
Hugo Avenue & 15 <sup>th</sup> Street	"No parking" sign	2	\$500	
<b>Total</b>			<b>\$750</b>	

**Table 5-5: Sidewalk Cost Estimate**

Street	Between	Length (m)	Cost Estimate	Time Frame
Munroe Avenue	Aird Street & Temperance Street	148	\$65,120	5 years plus
Munroe Avenue	15 <sup>th</sup> Street & Colony Street	151	\$66,440	
Munroe Avenue	11 <sup>th</sup> Street to 12 <sup>th</sup> Street	162	\$71,280	
McKinnon Avenue	15 <sup>th</sup> Street & Colony Street	168	\$73,920	
McKinnon Avenue	10 <sup>th</sup> Street to 11 <sup>th</sup> Street	180	\$79,200	
11 <sup>th</sup> Street	Clarence Avenue & multi-use trail behind Albert Community Centre	35	\$15,400	
Cumberland Avenue	Main Street and back lane (south)	42	\$18,480	
<b>Total</b>		<b>886</b>	<b>\$389,840</b>	

**Table 5-6: Total Cost Estimate**

Category	Signage & Temporary Traffic Calming	Permanent
Speed Signs	\$1,000	N/A
Pedestrian Crosswalk Signage & Pavement Markings	\$3,550	N/A
Pedestrian Devices	N/A	\$20,000
Traffic Control & Speed Signage	\$1,400	N/A
Parking Signage	\$750	N/A
Sidewalk	N/A	\$389,840
<b>Total</b>	<b>\$6,700</b>	<b>\$409,840</b>

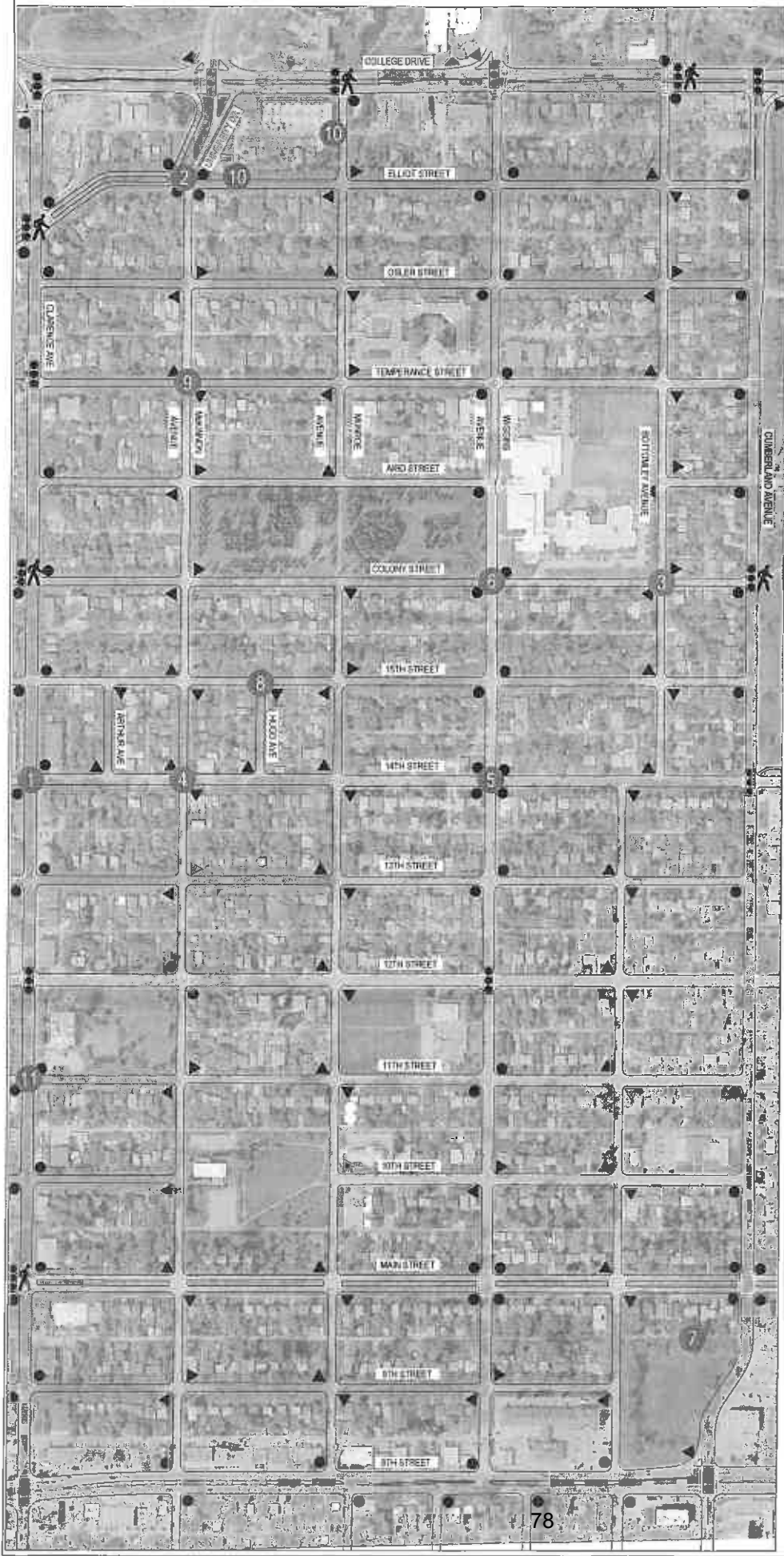
The total cost estimate for the signage and pavement markings to be installed in 2015 is **\$6,700**. The total cost estimate for the installation of future permanent devices, including the active pedestrian corridor, and sidewalks, is **\$409,840**.

Resulting from the plan development process, the recommended improvements, including the location, type of improvement, and schedule for implementation are summarized in **Table 5-7**. The resulting recommended Varsity View neighbourhood Traffic Management Plan is illustrated in **Exhibit 5-1**.

**Table 5-7: Varsity View Neighbourhood Recommended Improvements**

Location	Recommended Improvement	Time Frame
Clarence Avenue & 14 <sup>th</sup> Street	Zebra crosswalk; advanced pedestrian sign; enhance pedestrian crossing signs	1 to 2 years
University Drive & McKinnon Avenue	Pavement markings to indicate stop lines for 4-way stop	
Colony Street & Bottomley Avenue	Zebra crosswalk	
14 <sup>th</sup> Street & McKinnon Avenue	Stop signs	
Wiggins Avenue & 14 <sup>th</sup> Street	Move northbound "no parking" sign to stop sign is not obstructed	
McKinnon Avenue & Colony Street	"No parking" sign	
Back lane north of park (Cumberland Avenue & Bottomley Avenue)	20kph & playground signs	
Hugo Avenue & 15 <sup>th</sup> Street	"No parking" signs	
Temperance Street & McKinnon Avenue	4-way stop	
Back lane near 1100 block of Elliott Street (and Munroe Avenue)	20kph speed sign	
Clarence Avenue & 11 <sup>th</sup> Street	Active pedestrian corridor	1 to 5 years
Munroe Avenue between 15 <sup>th</sup> Street & Colony Street; Munroe Avenue between Aird Street & Temperance Street; McKinnon Avenue between 15 <sup>th</sup> Street & Colony Street; 11 <sup>th</sup> Street between Clarence Avenue & multi-use trail behind Albert Community Centre; McKinnon Avenue between 10 <sup>th</sup> Street to 11 <sup>th</sup> Street; Munroe Avenue between 11 <sup>th</sup> Street to 12 <sup>th</sup> Street; & Cumberland Avenue between Main Street and back lane (south)	Sidewalk	5 years plus

# VARSITY VIEW TRAFFIC PLAN



## LEGEND

- EXISTING STOP SIGN
- ▼ EXISTING YIELD SIGN
- BUS ROUTE
- ⬮ EXISTING TRAFFIC SIGNAL
- 🚶 PEDESTRIAN ACTUATED SIGNAL LOCATION

ITEM	PROBLEM	PROPOSED MEASURES	TIME FRAME
1	Clarence Ave & 14th Street	Zebra crosswalk; advanced pedestrian sign; enhanced pedestrian crossing signs	1 to 2 years
2	University Dr & McKinnon Ave	Pavement markings to indicate stop lines for 4-way stop	1 to 2 years
3	Colony St & Bottomley Ave	Zebra crosswalk	1 to 2 years
4	14th Street & McKinnon Ave	Stop signs	1 to 2 years
5	Wiggins Ave & 14th Street	Move northbound "no parking" sign so stop sign is not obstructed	1 to 2 years
6	McKinnon Ave & Colony Street	"no parking" sign	1 to 2 years
7	Back lane north of park (Cumberland Ave & Bottomley Ave)	20kph & playground signs	1 to 2 years
8	Huge Ave & 15th Street	"no parking" signs	1 to 2 years
9	Temperance St & McKinnon Ave	Stop signs or 4-way stop	1 to 2 years
10	Back lane north of Elliot St & west of Munroe Ave	20kph speed limit signs	1 to 2 years
11	Clarence Ave & 11th Street	Active pedestrian corridor	1 to 5 years

Exhibit S-1

## **Appendix A**

### **All Way Stop Assessments**

## All-way Stop Assessment (Policy C07-007 – Traffic Control – Use of Stop & Yield Signs)

### Step 1:

The following conditions, singly or in combination, may warrant the installation of all-way stop signs:

- i) When five or more collisions are reported in the last twelve month period and are of a type susceptible to correction by an all-way stop control.
- ii) When the total number of vehicles entering the intersection from all approaches averages at least 600 per hour for the peak hour or the total intersection entering volume exceeds 6,000 vehicles per day.
- iii) The average delay per vehicle to the minor street traffic must be 30 seconds or greater during the peak hour.
- iv) As an interim measure to control traffic while arrangements are being made for the installation of traffic signals.

Location	Warrant Condition 1: Peak Hour Count is 600 or greater	Warrant Condition 2: Average Daily Traffic Exceeds 6,000 vehicles per day	Warrant Condition 3: Five or more collisions occurred within most recent 12 months	% of Traffic from minor street	Traffic Signals or all-way stop within 200m	All-Way Stop Warrant
Colony Street & Bottomley Street	148	1580	1	40%	no	All-Way Stop Not Warranted
Cumberland Avenue & Osler Street	792	8150	0	8%	no	
Temperance Street & McKinnon Avenue	82	920	4 (4 right angle collisions occurred between Jun/12 to Jan/13)	49%	no	All-way stop warranted based on high collisions; proceed to Step 2

### Step 2:

Provided one of the above conditions is met, the following conditions must be met for all-way stop control to be considered:

- i) The combined volume of traffic entering the intersection over the five peak hour periods from the minor street must be at least 25% of the total volume for a three-way stop control, and at least 35% of the total volume for a four-way stop control.
- ii) There can be no all-way stop control and traffic signal within 200 metres of the proposed intersection being considered for all-way stop control on either of the intersecting streets.



Location	Condition 1: Combined volume of traffic entering intersection from minor street is at least 25% for 3-way stop or 35% for 4-way stop	Condition 2: There can be no all-way stop or traffic signal within 200m	Results
Temperance Street & McKinnon Avenue	49% - Condition met	165m to traffic signals at Clarence Avenue – Condition NOT met	Since traffic volumes are low, traffic volumes/queuing is not expected to occur at Clarence Avenue (traffic signals 165m west of the proposed intersection); therefore a 4-way stop is recommended due to high collisions

## **Appendix B**

### **Pedestrian Device Assessments**

**Pedestrian device assessment (Traffic Controls at Pedestrian Crossing, 2004)**

Bottomley Avenue & Colony Street:

**1. Lanes Priority Points:**

$L = 2$  lanes = number of lanes.

$LANF = 0.0$  points =  $(L-2) \times 3.6$  to a max of 15 points, urban x-section only.

**2. Median Priority Points:**

$MEDF = 6.0$  points = indicating there is no physical median here.

**3. Speed Priority Points:**

$S = 50$  kph = speed limit or 85th percentile speed.

$SPDF = 6.7$  points =  $(S-30) / 3$  to a maximum of 10 points.

**4. Pedestrian Protection Location:**

$D = 105$  m = distance from study location to nearest protected crosswalk.

$LOCF = 0.0$  points =  $(D-200) / 13.3$  to a maximum of 15 points.

**5. Pedestrian/Vehicle Volume Priority Points:**

$H = 5.0$  = ( hours ) duration of counting period.

$Ps = 150.0$  = total number of children, teenagers, seniors and/or impaired counted.

$Pa = 0.0$  = total number of adults counted.

$Pw = 225.0$  = weighted average of pedestrians crossing the main street.

$Pcm = 45.0$  = weighted average hourly pedestrian volume crossing the main street.

$V = 521.0$  = volume of traffic passing through the crossing(s).

$Vam = 104.2$  = average hourly volume of traffic passing through the crossing(s).

$VOLF = 9.4$  points =  $Vam \times Pcm / 500$

**6. Satisfaction of Installation Criteria:**

$SUMF = (LANF + MEDF + SPDF + LOCF + VOLF)$

$SUMF = 22$  points

(P.A. Signal Warrant  
Points)

The total of the warrant points is less than 100 indicating that a pedestrian actuated signal is NOT warranted.

Cumberland Avenue & Elliott Street:

**1. Lanes Priority Points:**

$L = 3$  lanes = number of lanes.

$LANF = 3.6$  points =  $(L-2) \times 3.6$  to a max of 15 points, urban x-section only.

**2. Median Priority Points:**

$MEDF = 3.0$  points = indicating there is a physical median here.

**3. Speed Priority Points:**

$S = 50$  kph = speed limit or 85th percentile speed.

$SPDF = 6.7$  points =  $(S-30) / 3$  to a maximum of 10 points.

**4. Pedestrian Protection Location:**

$D = 100$  m = distance from study location to nearest protected crosswalk.

$LOCF = 0.0$  points =  $(D-200) / 13.3$  to a maximum of 15 points.

**5. Pedestrian/Vehicle Volume Priority Points:**

$H = 5.0$  = ( hours ) duration of counting period.

$Ps = 30.0$  = total number of children, teenagers, seniors and/or impaired counted.

$Pa = 0.0$  = total number of adults counted.

$Pw = 45.0$  = weighted average of pedestrians crossing the main street.

$Pcm = 9.0$  = weighted average hourly pedestrian volume crossing the main street.

$V = 3587.0$  = volume of traffic passing through the crossing(s).

$Vam = 717.4$  = average hourly volume of traffic passing through the crossing(s).

$VOLF = 12.9$  points =  $Vam \times Pcm / 500$

**6. Satisfaction of Installation Criteria:**

$SUMF = (LANF + MEDF + SPDF + LOCF + VOLF)$

**SUMF = 26 points**

(P.A. Signal Warrant Points)

The total of the warrant points is less than 100 indicating that a pedestrian actuated signal is NOT warranted.

Cumberland Avenue & Osler Street:

**1. Lanes Priority Points:**

$L = 2$  lanes = number of lanes.

$LANF = 0.0$  points =  $(L-2) \times 3.6$  to a max of 15 points, urban x-section only.

**2. Median Priority Points:**

$MEDF = 6.0$  points = indicating there is no physical median here.

**3. Speed Priority Points:**

$S = 50$  kph = speed limit or 85th percentile speed.

$SPDF = 6.7$  points =  $(S-30) / 3$  to a maximum of 10 points.

**4. Pedestrian Protection Location:**

$D = 215$  m = distance from study location to nearest protected crosswalk.

$LOCF = 1.1$  points =  $(D-200) / 13.3$  to a maximum of 15 points.

**5. Pedestrian/Vehicle Volume Priority Points:**

$H = 5.0$  = ( hours ) duration of counting period.

$Ps = 45.0$  = total number of children, teenagers, seniors and/or impaired counted.

$Pa = 0.0$  = total number of adults counted.

$Pw = 67.5$  = weighted average of pedestrians crossing the main street.

$Pcm = 13.5$  = weighted average hourly pedestrian volume crossing the main street.

$V = 3223.0$  = volume of traffic passing through the crossing(s).

$Vam = 644.6$  = average hourly volume of traffic passing through the crossing(s).

$VOLF = 17.4$  points =  $Vam \times Pcm / 500$

**6. Satisfaction of Installation Criteria:**

$SUMF = (LANF + MEDF + SPDF + LOCF + VOLF)$

**SUMF = 31 points**

(P.A. Signal Warrant  
Points)

The total of the warrant points is less than 100 indicating that a pedestrian actuated signal is NOT warranted.

Cumberland Avenue & Aird Street:

**1. Lanes Priority Points:**

L = 2 lanes = number of lanes.  
LANF = 0.0 points = (L-2) x 3.6 to a max of 15 points, urban x-section only.

**2. Median Priority Points:**

MEDF = 6.0 points = indicating there is no physical median here.

**3. Speed Priority Points:**

S = 50 kph = speed limit or 85th percentile speed.  
SPDF = 6.7 points = (S-30) / 3 to a maximum of 10 points.

**4. Pedestrian Protection Location:**

D = 445 m = distance from study location to nearest protected crosswalk.  
LOCF = 15.0 points = (D-200) / 13.3 to a maximum of 15 points.  
Actual value = 18.4210 points.  
= 5

**5. Pedestrian/Vehicle Volume Priority Points:**

H = 5.0 = ( hours ) duration of counting period.  
Ps = 38.0 = total number of children, teenagers, seniors and/or impaired counted.  
Pa = 0.0 = total number of adults counted.  
Pw = 57.0 = weighted average of pedestrians crossing the main street.  
Pcm = 11.4 = weighted average hourly pedestrian volume crossing the main street.  
V = 3075.0 = volume of traffic passing through the crossing(s).  
Vam = 615.0 = average hourly volume of traffic passing through the crossing(s).  
VOLF = 14.0 points = Vam x Pcm / 500

**6. Satisfaction of Installation Criteria:**

SUMF ( LANF + MEDF + SPDF + LOCF + VOLF )  
=

SUMF = 42 points
------------------

(P.A. Signal Warrant Points)

The total of the warrant points is less than 100 indicating that a pedestrian actuated signal is NOT warranted.

Clarence Avenue & 14<sup>th</sup> Street:

**1. Lanes Priority Points:**

L = 4 lanes = number of lanes.

LANF = 7.2 points =  $(L-2) \times 3.6$  to a max of 15 points, urban x-section only.

**2. Median Priority Points:**

MEDF = 6.0 points = indicating there is no physical median here.

**3. Speed Priority Points:**

S = 50 kph = speed limit or 85th percentile speed.

SPDF = 6.7 points =  $(S-30) / 3$  to a maximum of 10 points.

**4. Pedestrian Protection Location:**

D = 210 m = distance from study location to nearest protected crosswalk.

LOCF = 0.8 points =  $(D-200) / 13.3$  to a maximum of 15 points.

**5. Pedestrian/Vehicle Volume Priority Points:**

H = 5.0 = ( hours ) duration of counting period.

Ps = 7.0 = total number of children, teenagers, seniors and/or impaired counted.

Pa = 32.0 = total number of adults counted.

Pw = 42.5 = weighted average of pedestrians crossing the main street.

Pcm = 8.5 = weighted average hourly pedestrian volume crossing the main street.

V = 5198.0 = volume of traffic passing through the crossing(s).

Vam = 1039.6 = average hourly volume of traffic passing through the crossing(s).

VOLF = 17.7 points =  $Vam \times Pcm / 500$

**6. Satisfaction of Installation Criteria:**

SUMF = ( LANF + MEDF + SPDF + LOCF + VOLF )

SUMF = 38 points
------------------

(P.A. Signal Warrant Points)

The total of the warrant points is less than 100 indicating that a pedestrian actuated signal is NOT warranted.

Clarence Avenue & 11<sup>th</sup> Street (Pedestrian-Activated Signal):

**1. Lanes Priority Points:**

$L = 4$  lanes = number of lanes.

$LANF = 7.2$  points =  $(L-2) \times 3.6$  to a max of 15 points, urban x-section only.

**2. Median Priority Points:**

$MEDF = 6.0$  points = indicating there is no physical median here.

**3. Speed Priority Points:**

$S = 50$  kph = speed limit or 85th percentile speed.

$SPDF = 6.7$  points =  $(S-30) / 3$  to a maximum of 10 points.

**4. Pedestrian Protection Location:**

$D = 100$  m = distance from study location to nearest protected crosswalk.

$LOCF = 0.0$  points =  $(D-200) / 13.3$  to a maximum of 15 points.

**5. Pedestrian/Vehicle Volume Priority Points:**

$H = 5.0$  = ( hours ) duration of counting period.

$Ps = 54.0$  = total number of children, teenagers, seniors and/or impaired counted.

$Pa = 30.0$  = total number of adults counted.

$Pw = 111.0$  = weighted average of pedestrians crossing the main street.

$Pcm = 22.2$  = weighted average hourly pedestrian volume crossing the main street.

$V = 4866.0$  = volume of traffic passing through the crossing(s).

$Vam = 973.2$  = average hourly volume of traffic passing through the crossing(s).

$VOLF = 43.2$  points =  $Vam \times Pcm / 500$

**6. Satisfaction of Installation Criteria:**

$SUMF = (LANF + MEDF + SPDF + LOCF + VOLF)$

$SUMF = 63$  points

(P.A. Signal Warrant Points)

The total of the warrant points is less than 100 indicating that a pedestrian actuated signal is NOT warranted.



Clarence Avenue & 11<sup>th</sup> Street (Active Pedestrian Corridor):

Time (15 min int.)	Vehicle Counts		Pedestrian Counts					P.C.		Periods	Points of	
			Total Both Sides					Factored Counts		Warra nt	Wrnt'd	Wrnt'd
	15 min	30 min	Child	Teen	Adult	Sr's	Total	15 min	30 min	Points	(1=Yes)	Periods
7:00												
7:15												
7:30												
7:45												
8:00	275	275			1		1	0.5	0.5	138		
8:15	279	554			1		1	0.5	1	554		
8:30	272	551	6		3		9	7.5	8	4,408		
8:45	243	515			3		3	1.5	9	4,635		
9:00		243							1.5	365		
9:15												
9:30												
9:45												
<b>AM Totals</b>	<b>1,069</b>		<b>6</b>		<b>8</b>		<b>14</b>					
11:30	231				2		2	1				
11:45	180	411	5		1		6	5.5	6.5	2,672		
12:00	220	400	8		2		10	9	14.5	5,800	1	5,800
12:15	194	414	16		2		18	17	26	10,764	1	10,764
12:30	208	402			2		2	1	18	7,236	1	7,236
12:45	221	429			1		1	0.5	1.5	644		
13:00	211	432							0.5	216		
13:15	210	421			1		1	0.5	0.5	211		
<b>Noon Totals</b>	<b>1,675</b>		<b>29</b>		<b>11</b>		<b>40</b>					<b>23,800</b>
14:00												
14:15												
14:30												
14:45												
15:00	235	235	18		4		22	20	20	4,700		
15:15	224	459							20	9,180	1	9,180
15:30	237	461			1		1	0.5	0.5	231		
15:45	261	498							0.5	249		
16:00	275	536	1		3		4	2.5	2.5	1,340		
16:15	296	571			2		2	1	3.5	1,999		
16:30	281	577			1		1	0.5	1.5	866		
16:45	313	594							0.5	297		
17:00		313										

17:15													
17:30													
17:45													
18:00													
18:15													
18:30													
18:45													
19:00													
19:15													
19:30													
19:45													
20:00													
20:15													
20:30													
20:45													
<b>PM Totals</b>	<b>2,122</b>		<b>19</b>		<b>11</b>		<b>30</b>						<b>9,180</b>

<b>Totals</b>	<b>4,866</b>		<b>54</b>		<b>30</b>		<b>84</b>							
			64%		36%		100%							
			<b>North Crosswalk =</b>					<b>74</b>						
			<b>South Crosswalk =</b>					<b>10</b>						

<<< install crosswalk on this side of the int.

**Appendix C**  
**Pedestrian Facilities Map**



## **Appendix D**

### **Recommendation Review Matrix**

Decision Matrix – Recommendations proposed at initial meeting

Item	Location	Recommendation	Marmitel	Mark	Laire	Decision
1	Clarence Ave & 11th St	Install active pedestrian corridor (flashing amber lights)				Carried.
2	Clarence Ave & 14th St	Install zebra crosswalk; install advanced pedestrian sign southbound (on hill); enhance pedestrian signs	like advanced signs but not zebra markings since not visible in winter...needs more	has been very unsafe for pedestrians. Need more.		Carried.
3	University Dr & McKinnon Ave	Install pavement markings to indicate stop lines for 4-way stop				Carried.
4	Colony St & Bottomley Ave	Install zebra crosswalk				Carried.
5	Wiggins Ave & Temperance St	Install audible pedestrian signal (ie. chirping sound)	concerned about increase in noise; hedge obstructing sightlines on northeast corner	Good idea but need to ensure we're mindful of sound at night. Time of day will effect. Should be pedestrian activated. Could it be motion-sensitive to help find the button. Should ask Luther whether it will benefit them to help residents. Helps to quantify.		Carried.
6	Wiggins Ave & Colony St	Upgrade pedestrian corridor to active pedestrian corridor (flashing amber lights)				Carried.
7	Wiggins Ave & College Dr	Install signs & pavement markings to indicate one lane for left/through movements & one lane for right turns only on Wiggins Ave northbound	concerned with roadway too narrow for 3 lanes; needs work; no room for cycling	Questions whether road is too narrow. Would like to see both lanes go straight, but group member noted campus side is only one lane. Issue for there turning right onto College Dr is pedestrians crossing both ways. Don't want traffic going straight to be held up by those turning left. Proposal needs more work.	If Wiggins is wide enough to add another lane it should be one for left turn only and the another for shared through and right turns	Removed. Wiggins Avenue is too narrow to accommodate additional lanes.
8	14th St & McKinnon Ave	Remove yield signs; install stop signs (east-west facing)		Now north-south has 3 block stretch. Maybe need 4-way stop somewhere along. Ideas- add full signals at Wiggins & Temperance. Difficult to turn left to go north on Wiggins.		Carried.
9	Munroe Ave between 16th St & Colony St; and between Alrd St & Temperance St	Install sidewalk on east side (180m)				Carried.
10	McKinnon Ave between 15th St & Colony St	Install sidewalk on west side (85m)				Carried.
11	11th St between Clarence Ave & multi-use trail behind Albert Community Centre	Install sidewalk on north side (45m)				Carried.
12	Elliott St & Wiggins Ave	Install directional closure on Elliott St westbound	need to improve Wiggins Ave & College Dr if they would like to increase traffic using that intersection as a result of directional closure; should consult Elliott St residents and surrounding (ie Oster St)	May put too much traffic at Wiggins Ave & College Dr. Split support for idea. What about emergency access?	May increase traffic on neighbouring streets; forces onto other streets; issues with drainage that needs to be considered	Removed. Install 20kph speed signs in back lane of 1100 block.
13	Corners of President Murray Park	Install "no parking" signs indicating 10m				Carried.
14	Wiggins Ave & 14th St	Install "no parking" signs indicating 10m				Carried.
15	Residential Parking Permit Zone	Survey residents to find 70% support 2-hr to 1-hr and weekends/holidays				Forwarded to Parking Services to review.

Decision Matrix – Additional comments

Item	Location	Recommendation / Concern	Decision
1	Back lane north of park (Cumberland Ave & Bottomley)	speeding & shortcutting; install 20kph or playground signs	Carried. Install 20kph speed & playground signs on both ends of back lane
2	Various locations	Students replicating / selling RPP passes for students	Parking Bylaw being reviewed. Comments will be included.
3	Main St	shortcutting (alternate yield/stop signs; raised median through intersection or 4-way stop at Wiggins Ave; left turn restrictions at Clarence Ave)	1. Clarence Ave between 8th St & College Dr is being reviewed. Comments will be included. 2. Main St - install temporary raised median through intersection and determine if conditions improve, survey will be sent to residents on Main Street, consider additional measures at Lansdowne Avenue & Main Street (Nutena)
4	McKinnon Ave (10th St to 11th St) & Munroe Ave (11th St to 12th St)	Sidewalk missing	Carried. Connects to community centres and parks.
5	College Dr & Clarence Ave	Stop line obstructing sidewalk near sign west side of Clarence Ave	No issues noted during site review.
6	College Dr & Munroe Ave	Sign east-west should be north-south	No issues noted during site review.
7	Main St & Clarence Ave	Concerned with lights being activated for approaching vehicles; needs review; address shortcutting; problem intersection with many accidents; very difficult to cross 4 lanes of traffic yet many people try; need to eliminate left turns and through movements	Clarence Ave between 8th St & 12th St is being reviewed. Comments will be included.
8	Clarence Ave at 8th St, 10th St, & 11th St	eliminate left turn and through movements to improve safety	Clarence Ave between 8th St & 12th St is being reviewed. Comments will be included.
9	Temperance St	One-way street	One-way streets not recommended. May cause speeding.
10	Aird St from Munroe Ave to Wiggins	Narrow due to parking	Noted. Narrow streets prevent speeding.
11	NB at 14th & Wiggins	Visibility issues of stop sign	"No Parking" sign will be moved to improve visibility of stop sign.
12	Cumberland Ave & Aird St	may need lights	Cumberland Ave between College Dr and 14th St is being reviewed as part of the College Quarter Plan. Comments will be included in review.
13	College Dr & Cumberland Ave	Needs work. Pedestrian safety issues.	Cumberland Ave between College Dr and 14th St is being reviewed as part of the College Quarter Plan. Comments will be included in review.
14	Various locations	lower speed limit to 40kph on residential streets	Noted.
15	Main St & Cumberland Ave (west side)	sidewalk needed	Carried. Sidewalk installation on Cumberland Ave between Main St & back lane south of Main St (west side only). Connects to bus stop. Site check indicated walking path through snow/grass. High traffic volumes on Cumberland Ave are also a concern.
16	8th St between Cumberland Ave & Clarence Ave	Allow U-turns	Only median openings on 8th St between Cumberland Ave & Clarence Ave are at Munroe Ave and Wiggins Ave. "No U-turn" signs currently installed. Comments will be included in 8th St Review.
17	Cumberland Ave & 8th St	Include intersection in Cumberland Ave Review (as part of College Quarter); review pedestrian crossings	Cumberland Ave & 8th St is outside of the College Quarter area. Intersection will be added to list for major intersection review.
18	Hugo Ave between 14th St & 15th St	Parking visibility issues	15th St - site check confirmed parking within 10m of intersection on the southwest & southeast corner of 15th St. Install "No parking" signs on both sides to indicate 10m zone. 14th St - fire hydrant on northwest corner, parking within 10m zone wasn't noted during site review. Hedges on the northwest corner may obstruct visibility. Ensure hedges are trimmed in the spring/summer.
19	Back lane between College Dr/Elliott St & Cumberland Ave/Bottomley Ave	shortcutting; large trucks	Speed and traffic volume study will be conducted in spring 2015 to determine if improvements are required.
20	President Murray Park	Install "No parking" signs to indicate 10m from intersection surrounding President Murray Park.	Site check confirmed signs were all in place except on the southwest corner on McKinnon Ave. Install "No parking" sign on McKinnon Ave 10m from Colony St intersection.
21	Temperance St & McKinnon Ave	Speeding on Temperance St caused by installation of yield signs (Stop & Yield Retrofit Program); install 4-way stop	4-way stops are not recommended as speed control devices however a review of the collision history determined 4 collisions occurred in a 5-month span between Jun/12 & Jan/13; speed study will be conducted in spring 2015

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## Prioritization Strategy for Roadway Network Improvements

### Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:

1. That the Administration be directed to develop the appropriate policy or policies for prioritizing transportation system improvements based on the outline presented in this report; and
2. That the Administration bring forward the draft policy or policies to the Standing Policy Committee on Transportation prior to implementation.

### Topic and Purpose

The purpose of this report is to provide information on the Administration's proposed approach to revising the process used for prioritizing traffic-related road network improvements. The Administration is seeking confirmation of the direction outlined in this report.

### Report Highlights

1. The Administration intends to develop a policy framework that will be used to prioritize investments in transportation system effectiveness.
2. The strategy will include the following programs: Neighbourhood Traffic Reviews, Intersection Improvement Reviews, Corridor Reviews, Pedestrian Crossing Control Reviews, and Major Infrastructure Reviews.
3. Infrastructure improvement projects resulting from the various reviews will be placed in the appropriate Capital Budget program and prioritized largely based on safety, traffic volumes, funding availability, funding sources, and impact of adjacent projects.
4. Other modes of travel such as walking, cycling and transit in Saskatoon are currently being examined by other significant transportation planning initiatives such as Growing Forward! Shaping Saskatoon and the Active Transportation Plan.

### Strategic Goal

This report supports the Strategic Goal of Moving Around by providing recommendations that improve safety for pedestrians, cyclists and motorists, as well as increases the efficiency of operations at intersections and through Arterial road corridors.

### Background

Transportation network improvement projects are brought forward by the Administration as part of the annual budget process. There are many factors that are considered when bringing forward recommended projects. New initiatives, such as the Neighbourhood Traffic Review program, result in additional sources of projects that need to be



considered by City Council during budget deliberations. Other identified sources of projects include:

- Intersection Improvement Reviews
- Corridor Reviews
- Pedestrian Crossing Control Reviews
- Major Infrastructure Reviews

The Administration intends to develop a draft policy framework that will be used to prioritize projects within each of the categories listed above, and prioritize between categories.

### **Report**

The inter-relation between the various sources of transportation network improvements is illustrated in Attachment 1. Below are further details.

### Prioritization Objectives

The Prioritization Strategy for Roadway Network Improvements provides the framework for ultimately developing a prioritized list of infrastructure improvement projects. The objectives of the strategy are as follows:

- Provide clarity on how an issue can be reviewed and a clear understanding of where an issue is in the process.
- Include a process for gathering public input when appropriate.
- Allow for engineering assessments.
- Generate a conceptual design of the recommended improvement.
- Develop a high-level cost estimate of the recommended improvement.
- Create or pursue opportunities for funding where appropriate (i.e. with Saskatchewan Government Insurance (SGI), the Province of Saskatchewan, Federal Government, or land developers).
- Prioritize infrastructure improvements in the appropriate Capital Program.
- Provide input into the annual budgeting process.

### Program Reviews

The prioritization strategy includes the following programs: Neighbourhood Traffic Reviews, Intersection Improvement Reviews, Corridor Reviews, Pedestrian Crossing Control Reviews, and Major Infrastructure Reviews. Details of these programs are found in Attachment 2.

Through the Neighbourhood Traffic Reviews completed to date, common themes are emerging that would form part of a broader transportation approach. The proposed strategy will allow the Administration to address these issues comprehensively. Attachment 3 provides a summary of the common themes and outlines the Administration's position.

### Prioritization of Specific Projects

Each program results in a list of prioritized projects. However, it is possible that the Intersection Reviews program and the Corridor Reviews program result in the

## **Prioritization Strategy for Roadway Network Improvements**

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identification of different intersection improvement projects. Accordingly, the intersection improvement projects will again be compared against each other in terms of traffic capacity and level of safety, and prioritized in the appropriate Capital Budget program dedicated to intersections.

### **Other Transportation Choices**

While the Prioritization Strategy for Roadway Network Improvements mainly focuses on vehicular movements, the other modes of travel including walking, cycling, and transit are also considered. Numerous other City initiatives are ongoing that focus on other transportation choices for moving around the city. The Growing Forward! Shaping Saskatoon project is currently addressing Rapid Transit, and the Active Transportation Plan will develop future plans for cycling and walking in the city. These significant transportation planning initiatives will include implementation plans that will be considered and incorporated by the Administration at that time.

### **Public and/or Stakeholder Involvement**

No public and/or stakeholder involvement was undertaken. For each specific program, different methods of public engagement will be required, and further reports will present this methodology.

### **Other Considerations/Implications**

There are no options, communication, policy, financial, environmental, privacy, or CPTED considerations or implications.

### **Due Date for Follow-up and/or Project Completion**

No follow-up is required.

### **Public Notice**

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

### **Attachment**

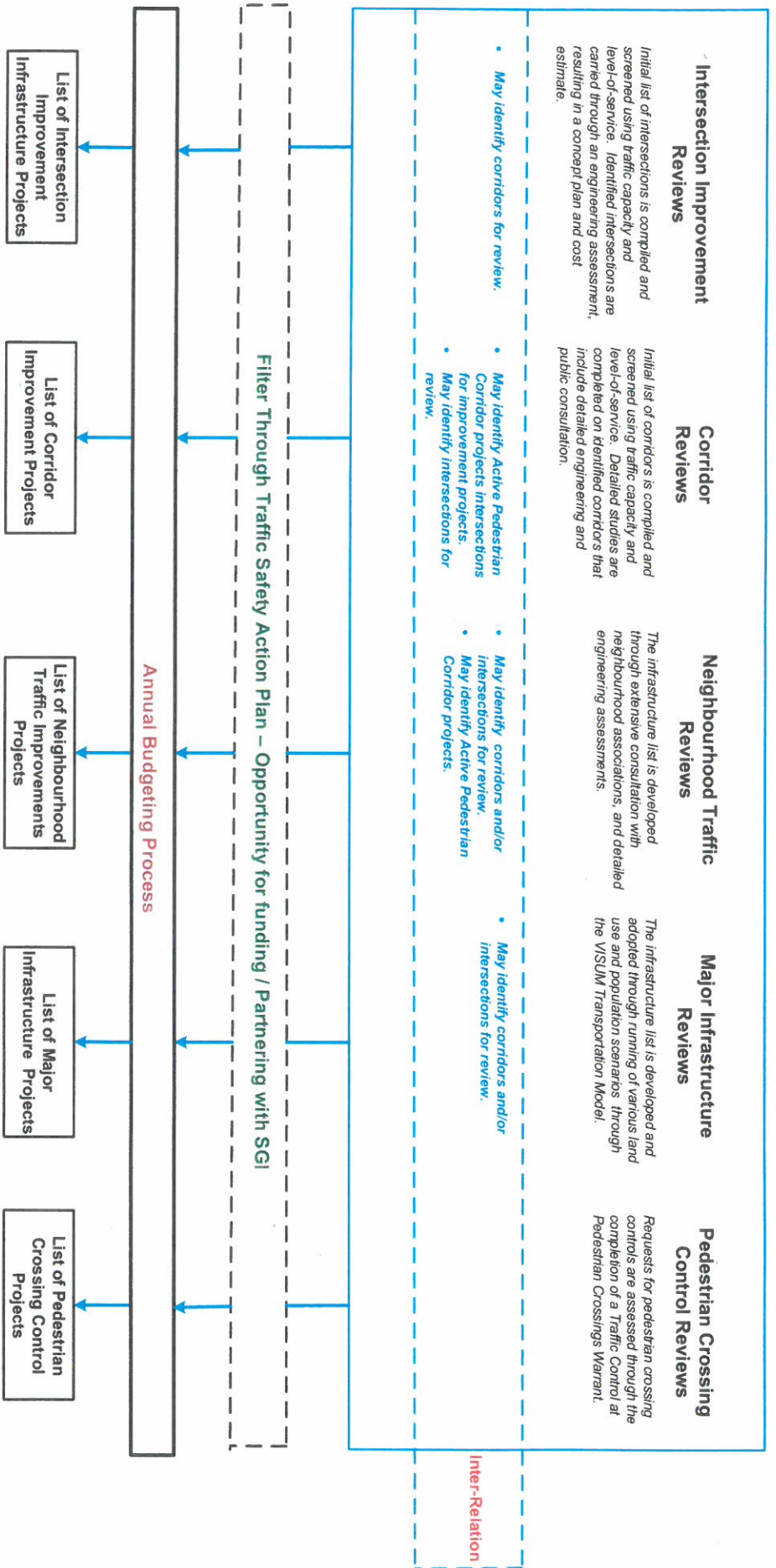
1. Prioritization Strategy for Network Improvements (Flowchart)
2. Description of Review Programs
3. Common Themes from Neighbourhood Traffic Reviews

### **Report Approval**

Written by: Jay Magus, Engineering Manager, Transportation  
Reviewed by: Angela Gardiner, Director of Transportation  
Approved by: Jeff Jorgenson, General Manager, Transportation & Utilities  
Department

TRANS JM – Prioritization Strategy for Roadway Network Improvements

# Prioritization Strategy for Network Improvements



## Description of Review Programs

### Neighbourhood Traffic Reviews:

- Description: A well-defined program that for each neighbourhood engages the public through at least two Open House events, and results in a Traffic Management Plan developed by the Administration with feedback from the public.
- Deliverables: A Traffic Management Plan that recommends infrastructure improvements, typically traffic calming and pedestrian safety orientated, but recommendations have included more significant and expensive infrastructure such as intersection improvements, Active Pedestrian Corridors (APC's) or construction of new sidewalks.
- Public consultation: Included through at least two Open House events and receiving feedback from the public and stakeholders.
- Example: The Brevoort Park Traffic Management Plan, adopted by City Council on February 23, 2015.
- Prioritization method: Annually in the fall the Administration recommends to City Council the eight neighbourhoods that should undergo a Neighbourhood Traffic Review in the upcoming calendar year. The process to determine the eight neighbourhoods includes:
  - Evaluation of existing traffic concerns;
  - Coordination with other projects; and
  - Distribution between areas and/or Wards.

### Intersection Improvement Reviews:

- Description: A systematic review of an intersection using traffic volumes and collision analysis to inform safety and capacity engineering improvements. Typically includes additional infrastructure (i.e. additional left-turn lane) at an existing intersection, or the changing of traffic control (i.e. installing traffic signals), that improves traffic capacity.
- Deliverables: A conceptual plan illustrating the required improvements and a high-level cost estimate of the required work.
- Public Consultation: Typically not required at this stage. Projects that move past this stage will include the appropriate consultation with adjacent landowners, businesses, and stakeholders as required.
- Examples: The improvements to the intersection of Attridge Drive and Central Avenue that are planned for 2015, and the new traffic signals to be installed at the intersection of Marquis Drive and Highway 16 in 2015.
- Prioritization Method: Includes the following steps:

- An initial list of intersections that may require improvements will be compiled based on the operation of the road network, inquiries received from the public, feedback from SGI and recommendations from the Neighbourhood Traffic Review program.
- The initial list will be screened using the number of collisions and traffic capacity as the two key indicators. Most intersection assessments will not proceed beyond this initial screening as many intersections in the city operate at an acceptable level of service, and are not over capacity or producing a high number of collisions.
- An engineering assessment of the intersections identified as in need of improvements. This includes developing a conceptual plan and a high-level cost estimate of the improvement.
- The prioritized list generated at the initial screening stage, using traffic capacity and level of safety as the key indicators, will be revisited and finalized in consideration of the conceptual plan and cost estimate being complete.

#### Corridor Reviews:

- Description: A defined program that typically will identify the following:
  - Immediate improvements required to address existing transportation demand.
  - Staged improvements required over the next ten years to meet future transportation demand along the corridor.
  - The following components will typically be addressed in a plan: number of lanes, pedestrian accommodation, type of traffic control (traffic signals vs. signs), type of intersection (roundabout vs. conventional), and access management.
- Deliverables: A corridor planning study that recommends infrastructure improvements to the transportation components described above will typically include conceptual plans and cost estimates, and will identify projects that can be completed in isolation. Examples include installing traffic signals, or projects that are more complex, such as a road widening.
- Public Consultation: Included through open houses to receive feedback from the public and stakeholders, and potential to have specific meetings with adjacent landowners to discuss changes to access.
- Example: The Preston Avenue corridor study was completed in 2012.
- Prioritization Method: A similar process to the intersection improvement reviews, focusing on traffic capacity and level of safety.

### Pedestrian Crossing Control Reviews:

- Description: Many requests are received annually for pedestrian crossing controls, including Active Pedestrian Corridors (APC's) and Pedestrian Actuated Signals (PAS). These requests may be one-off's from the public, through the School Boards, or through the Neighbourhood Traffic Review program. The current policy is to address these requests as they are received. The assessment process entails the gathering of significant traffic and pedestrian data. Once this information is collected, the assessment is completed in adherence to the City of Saskatoon Council Policy C07-018 Traffic Control at Pedestrian Crossings, November 15, 2004. A warrant system assigns points for a variety of conditions that exist at the crossing location, including:
  - The number of traffic lanes to be crossed;
  - The presence of a physical median;
  - The posted speed limit of the street;
  - The distance the crossing point is to the nearest protected crosswalk point; and
  - The number of pedestrians and vehicles at the intersection.
- Deliverables: A completed Traffic Control at Pedestrian Crossings Warrant.
- Public Consultation: This is not a formal component of the warrant, which relies on statistical data. However, typically feedback regarding pedestrian crossings is received through the Neighbourhood Traffic Review program or corridor studies.
- Example: The 20<sup>th</sup> Street between Avenues M and P pedestrian study recommended an APC at the intersection of 20<sup>th</sup> Street and Avenue N. This corridor will be installed in 2015.
- Prioritization Method: The outcome of the Traffic Control at Pedestrian Crossings Warrant results in a score. As a result, locations requiring enhanced pedestrian crossings will be prioritized based on their warrant score.

### Major Infrastructure Reviews:

- Description: A program that will identify large infrastructure improvements such as new interchanges, upgrades to existing interchanges, Arterial or Expressway widening's, or new bridges.
- Deliverable: A report presenting a list of required major infrastructure improvements. Information on an expected timeline of when the infrastructure is required, and a high-level cost estimate will also be provided. It is anticipated that each project will be a significant undertaking and will result in individual functional planning studies being required.
- Public Consultation: Not required at this stage. It is anticipated each identified project will require significant public consultation during the functional planning stage.

- Examples: Recent examples of these types of projects include the Circle Drive South Project, the North Commuter Parkway Project, and the Boychuk Drive and Highway 16 Interchange Project.
- Prioritization method:
  - The Ministry of Highways and Infrastructure is currently expanding Saskatoon's transportation model to include regional travel demands. A transportation model is a planning tool that generates traffic forecasts based on specific land use and road network assumptions. Typically forecasts are provided at population horizons. The revised Saskatoon transportation model will provide traffic forecasts at the 300k, 400k, and 500k population horizons. An example of using the model is that it allows comparisons of traffic patterns with or without significant road network connections, such as a bridge. Another example is traffic forecasts at a specific intersection may be acceptable at one horizon but not at another. The resulting conclusion is that at some point of time between the two horizons an interchange will be required. A final example is the ability to compare land use scenarios. The impacts to traffic volumes can be assessed if an existing neighbourhood is densified, or one can compare the traffic impacts between two different land use types, as different land uses generate different traffic characteristics.
  - The Administration, part of the Technical Review Committee of this Provincial initiative, expects the project to be completed by April 30, 2015. When completed, the model will provide more accurate traffic volume forecasts for the specific population horizons described above.
  - Using the transportation model, the Administration will update the 10 year infrastructure priorities list that was presented to City Council in September 2013. The priorities list will be highly dependent on funding options and timing of development and growth of the city.

### Common Themes from Neighbourhood Traffic Reviews

Common Themes	Administrative position
Flow of traffic at major intersections	The mandate for the Neighbourhood Traffic Management Reviews is to focus on neighbourhood streets such as local roads and collector roads. Arterial streets are much more complex than local or collector streets due to larger traffic volumes, different types of drivers (commuters), coordinated traffic signals, transit accommodation, and potentially many commercial accesses. To properly address these, the typical transportation engineering approach would require a corridor study or a major intersection review, both of which are complex and require significant resources. Through the Neighbourhood Traffic Reviews, the City is compiling a list of issues on arterial streets. The Transportation Division is working to prioritize the issues, identify the work requirements, and secure funding to complete these types of assessments.
Flow of traffic along arterial roadways	Same as "Major Intersections" above
More time needed for pedestrians to cross at intersections with traffic signals	Same as "Major intersections" above
Request for 4-way stops and stop signs to reduce speed	Council Policy C07-007 Traffic Controls: Use of Stop & Yield Signs, outlines that stop signs are not to be used speed control devices. Issues with enforcement and non-compliance may arise.
Install flashing yellow lights to reduce speed	Flashing yellow lights on local and collector streets (within neighbourhoods) are currently only used at intersections to improve pedestrian safety (ie. active pedestrian corridors). Implementation of new devices on local and collector streets requires further assessment to measure effectiveness and develop criteria for expanded use.
Reduce speed limits on narrow residential streets to 40 kph	The Administration does not support a posted speed reduction for an individual neighbourhood, or a sector of the City. This would be difficult to enforce, and confusing to drivers as crossing a street may place them in a different neighbourhood with 'new rules'. Any change to the default posted speed limit from 50kph to 40kph would be best implemented on a city-wide basis. Ultimately a change to the Traffic Bylaw 7200 would be required.
Install traffic signals to improve intersection safety	Traffic signals are not recommended on local or collector streets due to low traffic volumes. A formal warrant process is used to evaluate the appropriateness for traffic signals based on the traffic conditions.
Remove school zones (or at least near highschool / on arterials) to improve traffic flow	Change of Council Policy C07-015 is required. A comprehensive city-wide study would be required prior to any policy modifications.
Implement one-way streets to reduce traffic volumes and improve safety on narrow streets	Implementation of one-way streets may lead to speeding due to wider travel lanes. Physical traffic calming is more appropriate to address speeding and shortcutting.
Remove parking on narrow streets to improve safety	Removal of parking may lead to speeding due to wider travel lanes. Physical traffic calming is more appropriate to address speeding and shortcutting.



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## Winter 2014/2015 Snow & Ice Operations Summary

### Recommendation

That the report of the General Manager, Transportation & Utilities Department dated May 11, 2015, be forwarded to City Council for information.

### Topic and Purpose

The purpose of this report is to provide an update on the 2014/2015 Snow and Ice Management programs and highlight continuous improvement successes.

### Report Highlights

1. Through continuous improvement exercises, Public Works is enhancing customer service by introducing innovative solutions to winter maintenance program delivery. Cost savings, efficiencies and improved effectiveness were achieved in Area Snow Maintenance, School Zones Snow Removal, Business Improvement Districts Snow Maintenance, Circle Drive and Bridge Snow Removal programs.
2. The snow pack depth on residential streets was measured regularly to balance the impact of reduced on-street parking with reducing the risk of severe rutting. As a result, grading occurred on the highest risk streets, accounting for 25% of roads.
3. A fourth temporary Snow Storage Site was opened this past winter for public access, providing access in each quadrant of the city. A new policy banning deliberate tailgate slamming was introduced, and sound attenuation snow berms were built at two sites to reduce the noise disruption to adjacent residential neighbourhoods.
4. A new de-icing product and modified application techniques reduced the amount of sand required by 28%, reducing aggregate costs by \$250,000. The new de-icing strategy resulted in improved winter driving conditions.
5. The Better Winter Roads communications campaign continually informed the media and residents on levels of service provided for snow and ice maintenance. Public Works saw reduced complaints and increased confidence in our Snow & Ice programs. Internal process improvements for weekly information updates saved the equivalent of \$90,000 in Public Works staff time in one year.

### Strategic Goals

Programs introduced and improved this year support the Asset and Financial Sustainability Leadership Commitment, as well as Strategic Goals of Moving Around, Quality of Life and Continuous Improvement.

## **Background**

At its meeting held March 23, 2015, City Council adopted a report of the General Manager, Transportation & Utilities Department, dated March 9, 2015, which outlined results and savings in the first two months of the program.

## **Report**

Following is a summary of significant achievements this winter. Additional program details are provided in Attachment 1.

### Coordinated and Strategic Winter Maintenance Programs

Cost savings, efficiencies and improved effectiveness were achieved in various Snow & Ice programs this season, compared to the previous winter.

- The average completion time for the City-Wide Priority Street Grading was 65 hours.
- The new structure for Area Snow Maintenance Contracts, including the removal of a retainer, and smaller maintenance areas helped Public Works realize reduced costs of \$716,217, reducing the average contractor cost per snow event by 27% when compared to the previous winter.
- Snow windrows were removed from all school zones twice this winter, compared to once the previous winter.
- Business Improvement District area merchants were provided a 24-hour timeline for shovelling their sidewalk snow into the curb lane in advance of City crews snow grading and removing snow, improving sidewalk conditions for customers and pedestrians.
- Priority streets in the Downtown, Broadway, Riversdale, Sutherland and 33<sup>rd</sup> Street business areas were graded within the first 12 hours of a snow event, with snow removal occurring once Circle Drive and bridge protective barrier snow removal was completed.
- The Snow Train process was evaluated against other methods of snow removal on freeways against barriers. Administration determined it was the most effective solution, and adjustments were made to optimize the work.

### Residential Grading to Prevent Severe Rutting

Approximately 25% of all residential streets were graded this winter, reducing the impact of windrows to on-street parking along streets that were not at high risk for severe rutting.

### Enhanced Snow Storage Sites for Residents

Approximately \$556,700 was spent on snow pushing contracts this winter, which is \$340,040 less than the previous winter. This cost reduction was achieved in part by modifying bulldozer snow pushing contracts and refining trigger points for initiating pushing.

### De-icing Additive Pilot Tests

Roadway conditions were significantly improved where these processes were applied. A new de-icing product improved the effectiveness of salt at colder temperatures,

reducing the amount of sand applied to roads and resulted in an overall reduced cost of \$250,000 in de-icing aggregate compared to the previous winter. Attachment 2 provides a detailed summary of usage, costs savings and results.

#### Increased Communications for Stakeholders

There was an 8.2% reduction in resident complaints to the Customer Service Call Centre regarding snow and ice related programs compared to last year. A new structure for communications support provided enhanced weekly program information and updates for City Councillors, saving the equivalent of \$90,000 in Public Works' staff time required for the new process (see Attachment 3).

#### **Public and/or Stakeholder Involvement**

Throughout the season, regular updates were provided to internal stakeholders on process, successes and lessons learned. Specific stakeholder engagement occurred with the residents in Montgomery and Briarwood as nearby snow storage sites were developed.

#### **Communication Plan**

Using the Better Winter Roads brand, information about the Snow & Ice Programs was included on the Building Better Roads website, and later the new saskatoon.ca site. Weekly themes focused on timely operational programs, describing the process and explaining rationale for the level of service performed. Weekly themes were promoted through a combination of radio and print advertising, social media channels, earned news media activities and printed posters (see Attachment 4). Public Service Announcements, Service Alerts and an online interactive snow grading map were used to communicate weather event operations, including status of grading during a snow event. Snow storage site users subscribed to an email list for updates on the operations of the sites.

#### **Financial Implications**

Snow & Ice operations for January, February and March of 2015 have exceeded the anticipated expenditures for this point in the budget year. It is the Administration's intention to continue to manage this program within approved budget allocations.

#### **Other Considerations/Implications**

There are no environmental, policy, privacy, or CPTED implications or considerations.

#### **Due Date for Follow-up and/or Project Completion**

Annual reports will be provided each spring.

#### **Public Notice**

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

**Attachments**

1. Snow & Ice Major Program Overview
2. De-icing Pilot Programs Summary
3. Better Winter Roads – Celebrating Success
4. Better Winter Roads poster

**Report Approval**

Written by: Megan Thoreson, Operations Engineer

Reviewed by: Pat Hyde, Director of Public Works

Approved by: Jeff Jorgenson, General Manager of Transportation and Utilities

TRANS MT - Winter 2014/2015 Snow & Ice Operations Summary.docx

## **Snow & Ice Major Program Overview**

### Coordinated and Strategic Winter Maintenance Programs

#### ***Restructured Area Snow Maintenance Contracts (Snow Events)***

Following a snow event of 5 centimetres or more, the City is committed to grading all priority streets within 72 hours (City-Wide Priority Street Grading). In order to effectively meet this target, City crews grade priority streets within and including Circle Drive, and Area Snow Maintenance contractors are engaged for the remaining neighbourhoods. This winter has been comparable to last winter, with six snow events compared to seven in the winter of 2013/14.

The two former contract maintenance areas were divided into four and tendered separately. This change created a more competitive bidding process. Tighter time requirements, the removal of a retainer fee and an implemented penalty clause, ensured quality and timely response when contractors were activated.

#### Continuous Improvement

- The average completion time for the City-Wide Priority Street Grading was 65 hours.
- The new structure for Area Snow Maintenance Contracts, including the removal of a retainer and smaller maintenance areas resulted in reduced costs of \$716,217, when compared to the last winter season reducing the average contractor cost per snow event by 27 percent.

#### ***School Zone Snow Removal***

This program had significant improvements targeted to each school location resulting in:

- Expanded bus and vehicle loading zones where windrows could not be stored.
- A larger windrow removal zone allowed for improved on-street parking.
- Contractors were utilized under strict operational requirements that did not allow for operations during school hours to enhance student safety. The plan was vetted through school officials, resulting in significantly fewer complaints.

#### Continuous Improvement

- Snow windrows were removed from all school zones twice this winter, compared to once the previous year.

#### ***Prioritized Business Improvement District (BID) Grading***

Following a snow event, the higher-traffic streets within each BID were graded within the first 12 hours. Upon completion of the City-Wide Priority Street Grading, a follow-up grading along with snow removal throughout the BIDs received higher priority.

#### Continuous Improvement

- BID area merchants were provided a 24-hour timeline for shovelling their sidewalk snow into the curb lane in advance of City crews snow grading and removing snow, improving sidewalk conditions for customers and pedestrians.
- Priority streets in the Downtown, Broadway, Riversdale, Sutherland and 33<sup>rd</sup> Street business areas were graded within the first 12 hours of a snow event, with

snow removal occurring once Circle Drive and bridge protective barrier snow removal was completed.

### ***Circle Drive, Overpasses and Bridge Snow Removal***

Good winter driving conditions on Circle Drive and bridges is the top priority throughout winter, followed closely by priority one and two streets. Plowed snow that is not able to be pushed into ditches is stored along the protective barriers. These barriers are monitored frequently and stored snow removed to eliminate a hazard potential for motorists.

The 20-vehicle Snow Train introduced in 2014 to safely remove snow along the Circle Drive and bridge protective barriers was continued through this season. Improvements were applied for motorist and staff safety. Alternate processes were piloted to compare for safety, efficiency and effectiveness. Results show that the Snow Train was most effective at an estimated cost of \$100,000 per complete snow removal.

#### Continuous Improvement

- The Snow Train process was challenged for reduced costs and improvements, and Administration determined it was the most effective solution.

### Residential Grading to Prevent Severe Rutting

It was reported to Council earlier in the season that the snow pack depth on non-priority residential streets would be regularly monitored. Only when an average snow pack of 15 cm (6 inches) was reached would City-Wide Snow Grading be activated. This would be a proactive response to reduce the potential for ruts to develop during spring melt. Adhering to this trigger point would also reduce the length of time windrows would impact residential on-street parking.

Monitoring showed the average snow pack depth was approximately 10 cm (4 inches) with only isolated locations reaching the 15 cm accumulation. Narrow streets prone to rutting were addressed on an as required basis and if necessary snow removal was performed.

#### Continuous Improvement

- Approximately 25 percent of all residential streets were graded this winter, reducing the impact of windrows to on-street parking along streets that were not at high risk for severe rutting.
- Reductions in signage, towing, parking enforcement costs and contract graders compared to the previous winter allowed the funding to be used to respond quicker to high-risk roads and troublesome locations.

### Enhanced Snow Storage Sites for Residents

A fourth temporary snow storage site was opened for public access in the southeast quadrant east of Briarwood on 8<sup>th</sup> Street. This site was operated with reduced hours and restrictions applied to reduce the potential for noise impact on nearby residents.

To reduce the noise impact to nearby residents at the Valley Road and 8<sup>th</sup> Street Snow Storage Sites, the implementation of snow berms for sound attenuation and an enforced

“no deliberate tailgate slamming” policy were introduced. Noise complaints were significantly reduced once the berms were completed.

#### Continuous Improvement

- Approximately \$556,700 was spent on snow pushing contracts this year, which is a reduction of \$340,040 when compared to the previous winter. This cost reduction was achieved, in part, by modifying bulldozer snow pushing contracts and oversight, and refining trigger points for initiating pushing.

#### De-icing Additive Pilot Tests

A new de-icing product, Caliber M1000, was tested using two application techniques and determined to be more efficient and cost-effective than previous de-icing programs. When mixed with sand/salt at temperatures below -15°C, it lowered the working temperature of the salt, helping the sand stick to the road for traction. Using Caliber M1000 as a pre-wetting application technique with sand/salt mixture improved the effectiveness even more.

#### Continuous Improvement

- Roadway conditions were significantly improved where these processes were applied.
- A new de-icing product improves the effectiveness of salt at colder temperatures, reducing the amount of sand applied to roads and resulted in an overall reduced cost of \$250,000 in de-icing aggregate compared to the previous winter.

#### Increased Communications for Stakeholders

“Better Winter Roads” was developed to leverage on the Building Better Roads summer construction and maintenance campaign. Alongside the new winter word mark, regular communication pieces used the slogan “Plowing Ahead” as a positive statement about the improvements and effectiveness of the on-going Snow & Ice programs. A communications plan was developed to educate residents on the many programs and initiatives the City undertakes throughout the winter and surrounding snow events in the City.

Specific programs were highlighted at weekly media events: Launch of the Snow & Ice Plan, Sidewalk Clearing Bylaw, Snow Event Preparedness, Snow Event Grading Interactive Map and Snow Route Parking Ban Program, Slushy Road Conditions Operations, Snow Angels Recognition, City-Wide Residential Snow Grading Trigger Points, Snow Melt Activities, and a Snow & Ice Program Wrap-up, along with Public Service Announcements (PSAs) as required to remind residents and media of the City’s preparedness for forecasted snow, and encourage cautious driving as road conditions changed and more equipment was on the road.

A new process of collecting and sharing program information weekly resulted in \$90,000 in staff time saved in one year, when compared to weekly internal updates.

#### Communications Successes

- There was an 8.2 percent reduction in resident complaints to the customer service call centre about snow and ice related programs compared to last year.

- A new structure for communications support provided enhanced weekly program information and updates for City Councillors, saving the equivalent of \$90,000 in Public Works staff time required for the new process.



## De-icing Pilot Programs Summary

Caliber M1000 was used in two applications this year:

1. As a PRE-MIX - Sand/salt and 2.5% Caliber M1000 are mixed together. This pre-mix is used for when temperatures dropped below -15°C (the effective working temperature of salt); and
2. As a PRE-WET - Sand/salt is sprayed with Caliber M1000 just as it is leaving the sand spreader onto the road surface. This increases the adhesion of sand to the road surface.

### PRE-MIX (Sand/salt and Caliber M1000 are mixed together before usage)

Usage of Caliber M1000 this past winter has reduced road sand usage by 28 percent and road salt usage by 3.5 percent. For this technique, a greater concentration of de-icer is mixed with the aggregate, ultimately requiring one and a half times more than last year. The additional cost of the de-icer is more than made up for in the reduced sand and salt usage, saving approximately \$250,000 (2014-15 rates) in ice management costs this year.

	Cost		Difference (savings)
	2014-15	2013-14	
Salt	\$ 270,000	\$ 280,000	(\$ 10,000)
Sand	\$ 682,500	\$ 945,000	(\$262,500)
De-icer	\$ 91,000	\$ 65,500	\$ 25,500
	<b>\$1,043,500</b>	<b>\$ 1,290,500</b>	<b>(\$247,000)</b>

	Usage - tonnes		Difference (savings)
	2014-15	2013-14	
Salt	3,950	4,090	(3.5 %)
Sand	26,000	36,000	(28 %)
De-icer	320	200	155 %

### PRE-WET (Sand/Salt is sprayed with liquid Caliber M1000 as it is applied)

One sander was modified with a Caliber M1000 pre-wetting unit for testing through February to supplement the Caliber M1000 pre-mixed sand. It was determined to be more cost effective and efficient than pre-mixed sand, using 1.5 litres of de-icer per tonne of sand versus 2.5 litres per tonne.

The remaining three pre-wetting units have arrived and the sanders are currently being equipped, for a total of four units for operation next winter. Pre-mixing of Caliber M1000 sand is currently being assessed and may be gradually phased out over the next few years and replaced with pre-wetting trucks which appear to be more cost effective and efficient as we move to a new and improved maintenance standard.

We will be investigating the feasibility of a direct liquid application (DLA) of Caliber M1000 to roadways prior to snow fall this fall. Caliber M1000 creates a brine barrier to prevent the adhesion of the ice pack to the roadway, making it easier to manage.

Better Winter Roads – Celebrating Success

### Reduced Response Time



**65 hrs**

Goal: 72 hrs  
Actual: 65 hrs

Average response time to grade snow on every priority street once, after snowfall

**BETTER WINTER ROADS**  
SASKATOON'S SNOW & ICE PLAN



### Sanding for Better Roads



**25,000<sup>+</sup>**

tonnes of sand was applied to major roadways, streets and intersections

**BETTER WINTER ROADS**  
SASKATOON'S SNOW & ICE PLAN



### Keeping Saskatoon Moving



**13,000<sup>+</sup>**

tandem truckloads of snow removed from city streets

**BETTER WINTER ROADS**  
SASKATOON'S SNOW & ICE PLAN



### Finding Savings



**\$250,000**

New de-icing product improved road conditions and reduced our need for sand by 28%, saving \$250,000

**BETTER WINTER ROADS**  
SASKATOON'S SNOW & ICE PLAN



**BETTER  
WINTER  
ROADS**  
SASKATOON'S SNOW & ICE PLAN



# PLOWING AHEAD

## IN YOUR COMMUNITY

From snow grading to sanding, the City has crews working around the clock to bring you Better Winter Roads.



### Snow Grading

Following a snow event, roads are graded in order of an established priority system. During a snow event, equipment remains on the high speed and high traffic volume roads such as Circle Drive and Priority 1 roads until the snow stops.



### Sidewalk Clearing

A City bylaw requires residential sidewalks to be clear of snow and ice within 48 hours after a snowfall. Cleared snow must be placed on your own property not on City streets. To report an uncleared sidewalk, contact Public Works Customer Service at 306-975-2476.



### School Zones

Graded snow piles can present hazards for drop-off and pick-up and if a student attempts to climb them. These piles will be removed frequently, outside of school hours, typically at night.



### Sanding & Salting

When it comes to de-icing our roads and intersections crews use a mixture of sand and salt to improve traction and keep drivers moving around.



### Snow Routes

Snow Routes are priority roadways for snow clearing because they ease the flow of traffic. These routes are marked with permanent green or blue metal no parking signs. The City will only declare a Snow Route Parking Ban if snowfall is extreme.



### Snow Angel Contest

Nominate a friend, neighbour or volunteer who helps clear snow for you and others in your neighbourhood. We'll send them a thank you and enter their name in a monthly prize draw.